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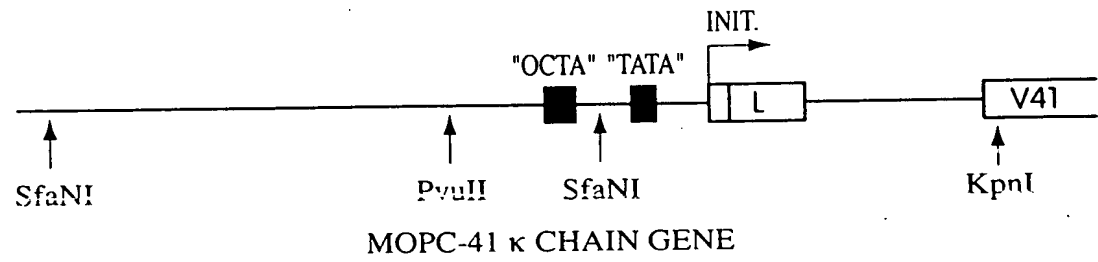


Fig. 1A

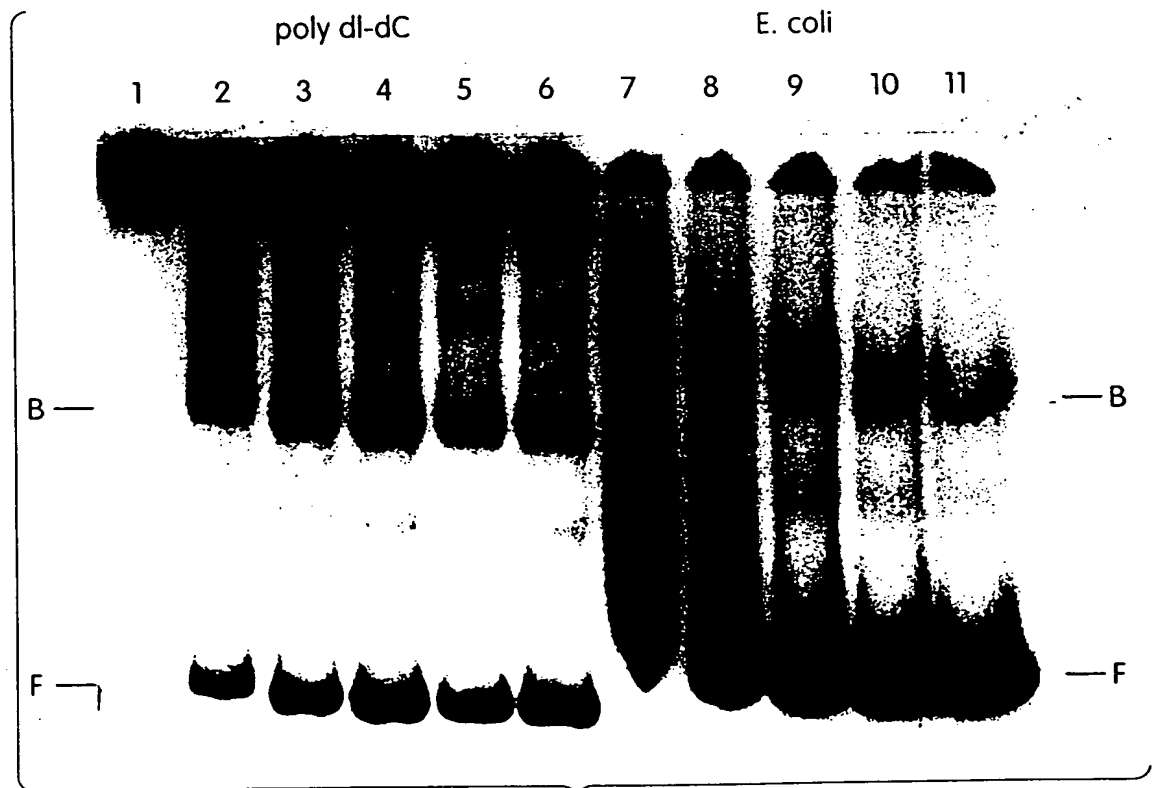


Fig. 1B

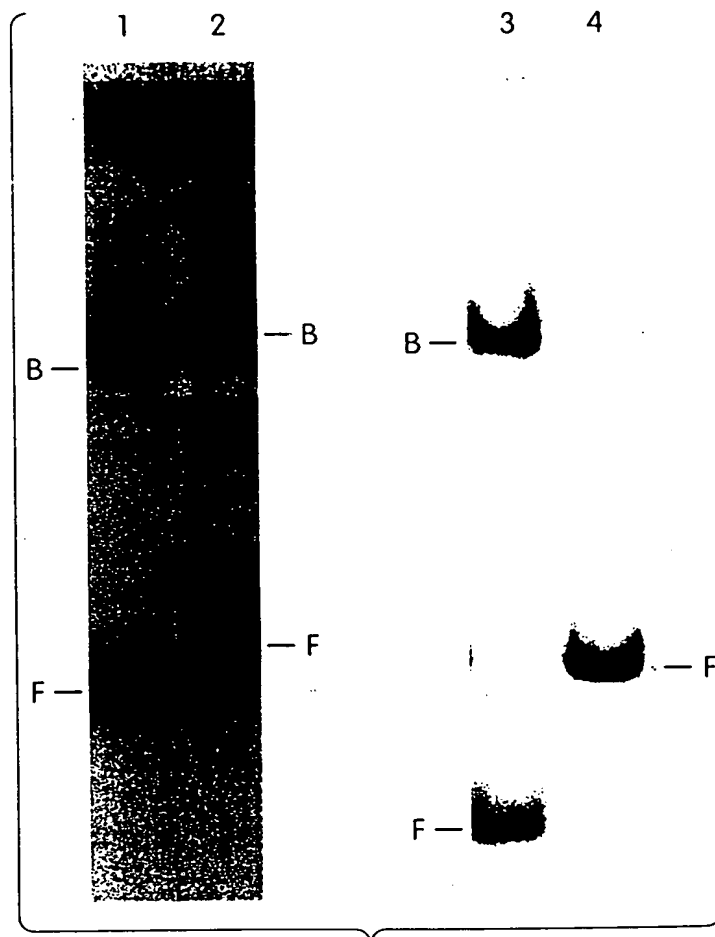


Fig. 1C

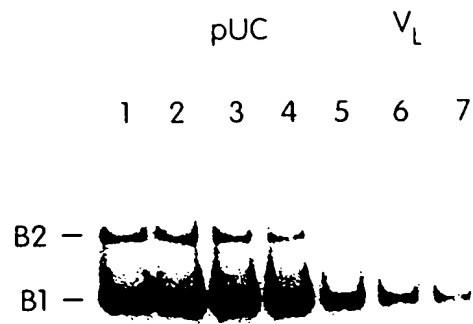
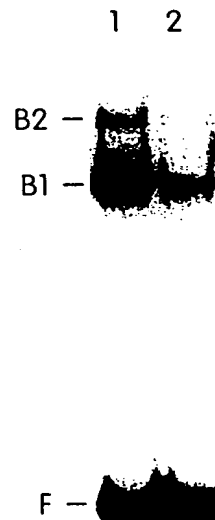


Fig. 2A



HeLa

Fig. 2B

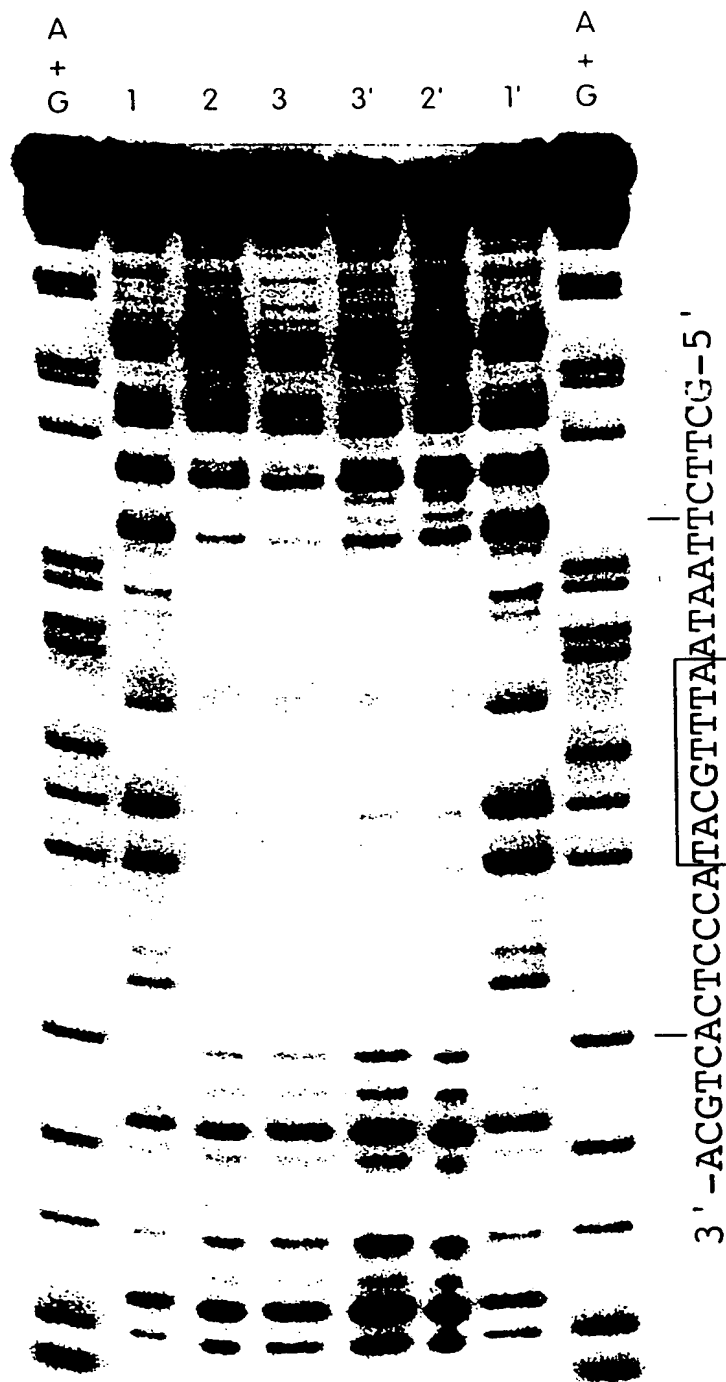


Fig. 3

	*	*
V <sub>L</sub> coding strand (-66)	TCTTAATA	ATTTGCAT ACCCTCAC
V <sub>H</sub> non-coding strand (-50)	CGCACATG	ATTTGCAT ACTCATGA
J <sub>H</sub> - C <sub>μ</sub> coding strand (166)	CCTGGGTA	ATTTGCAT TTCTAAAA

Fig. 4A

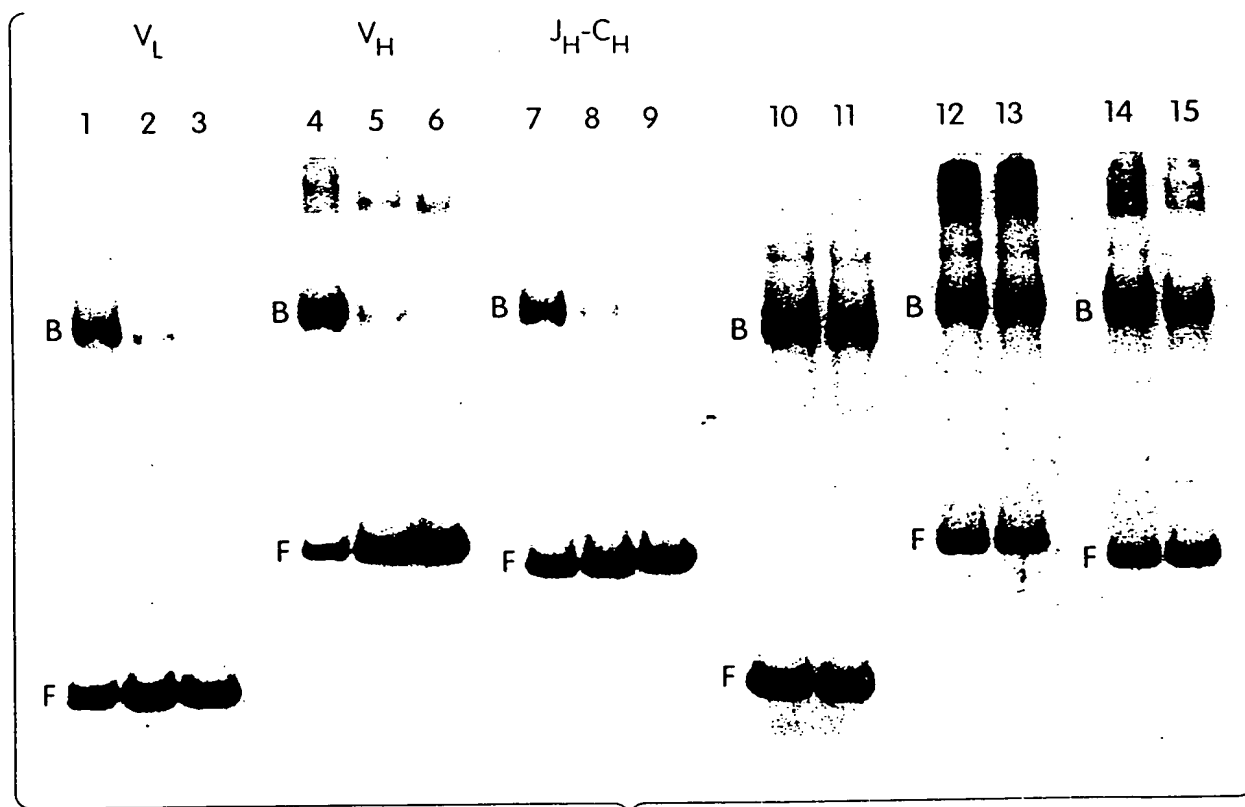


Fig. 4B

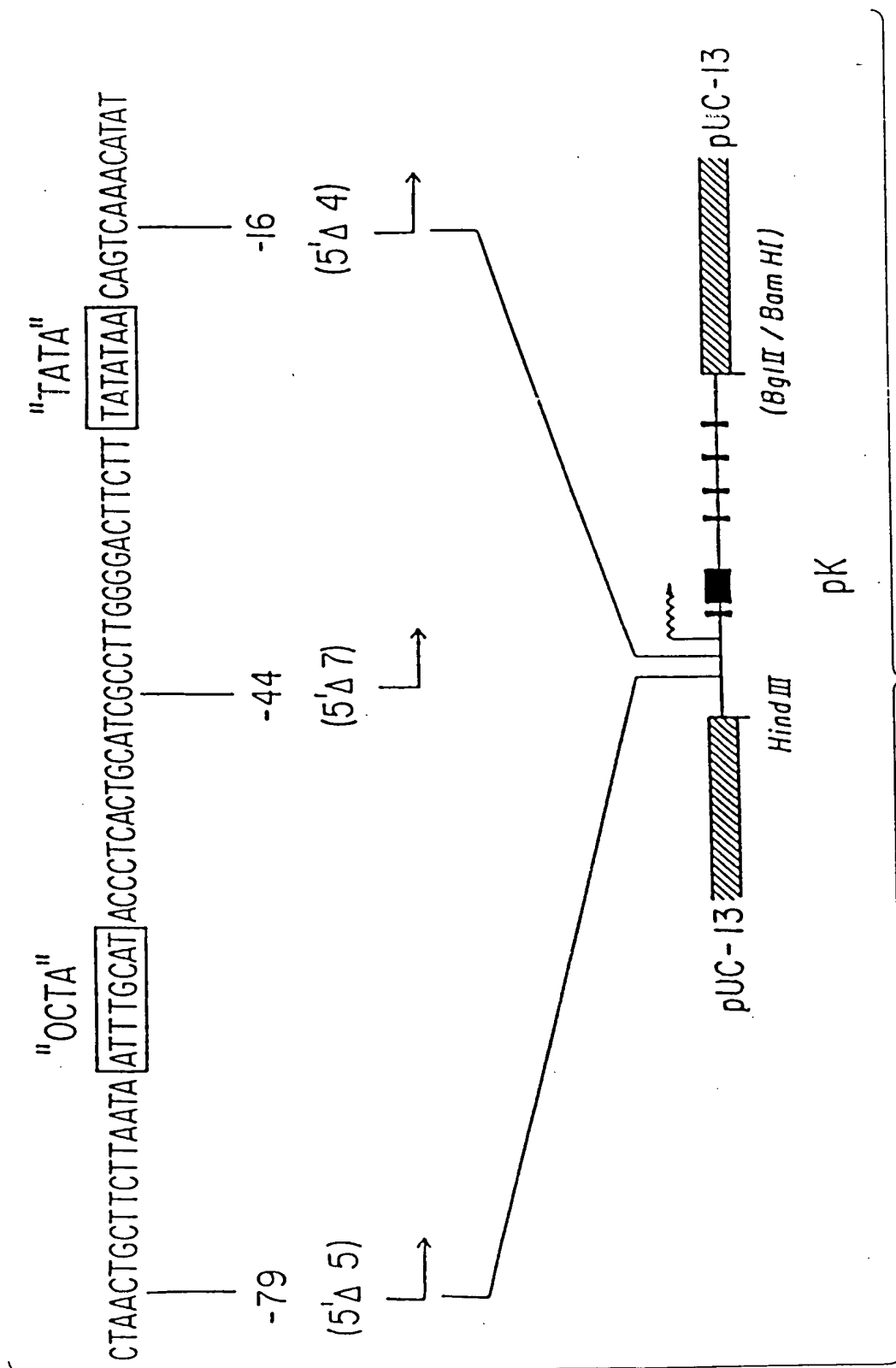


Fig. 5A

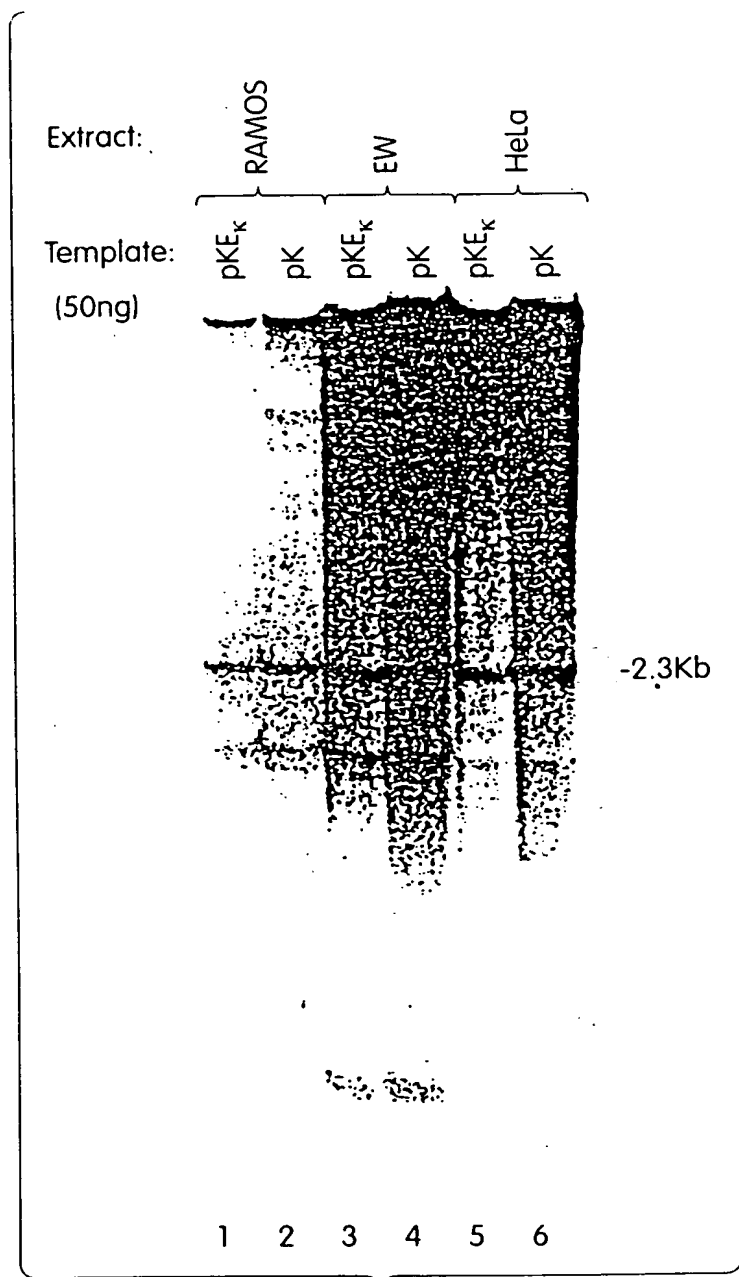


Fig. 5B



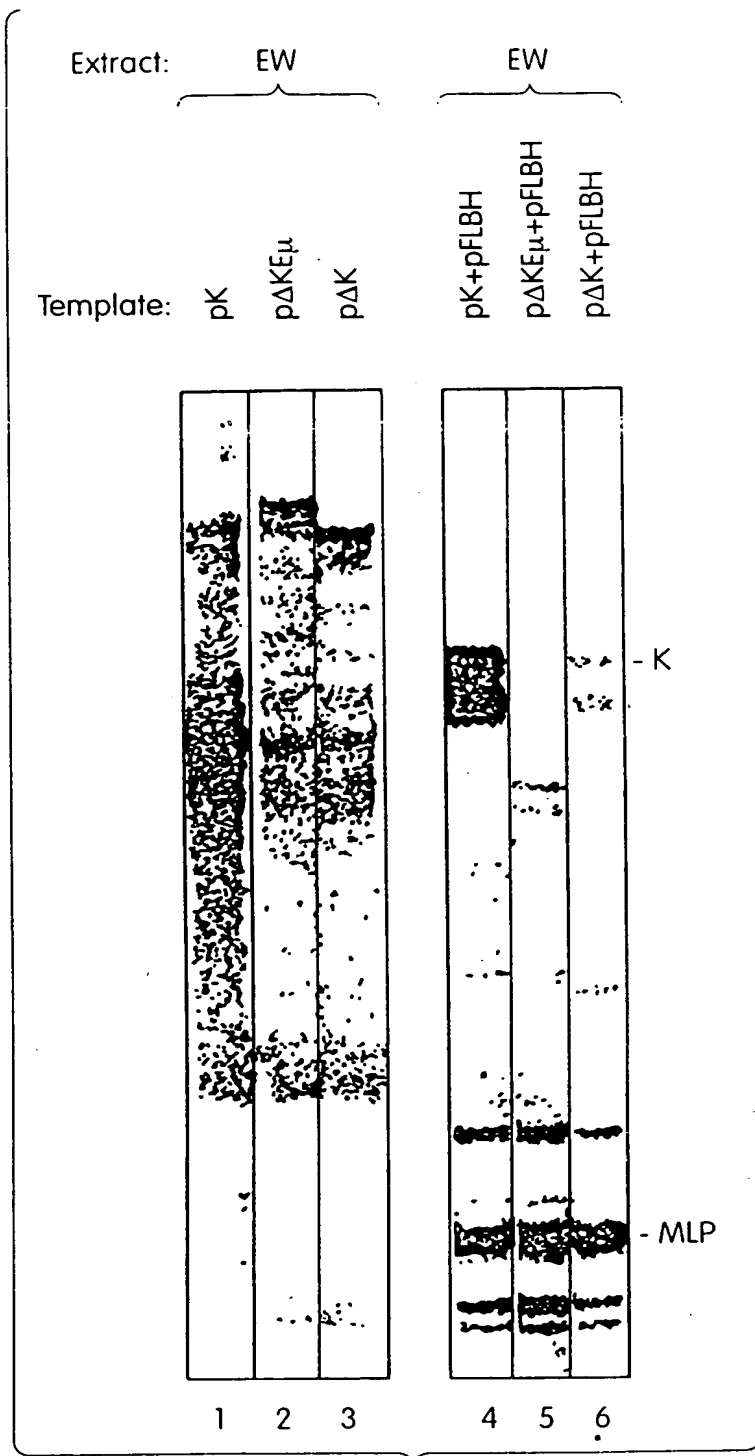


Fig. 6

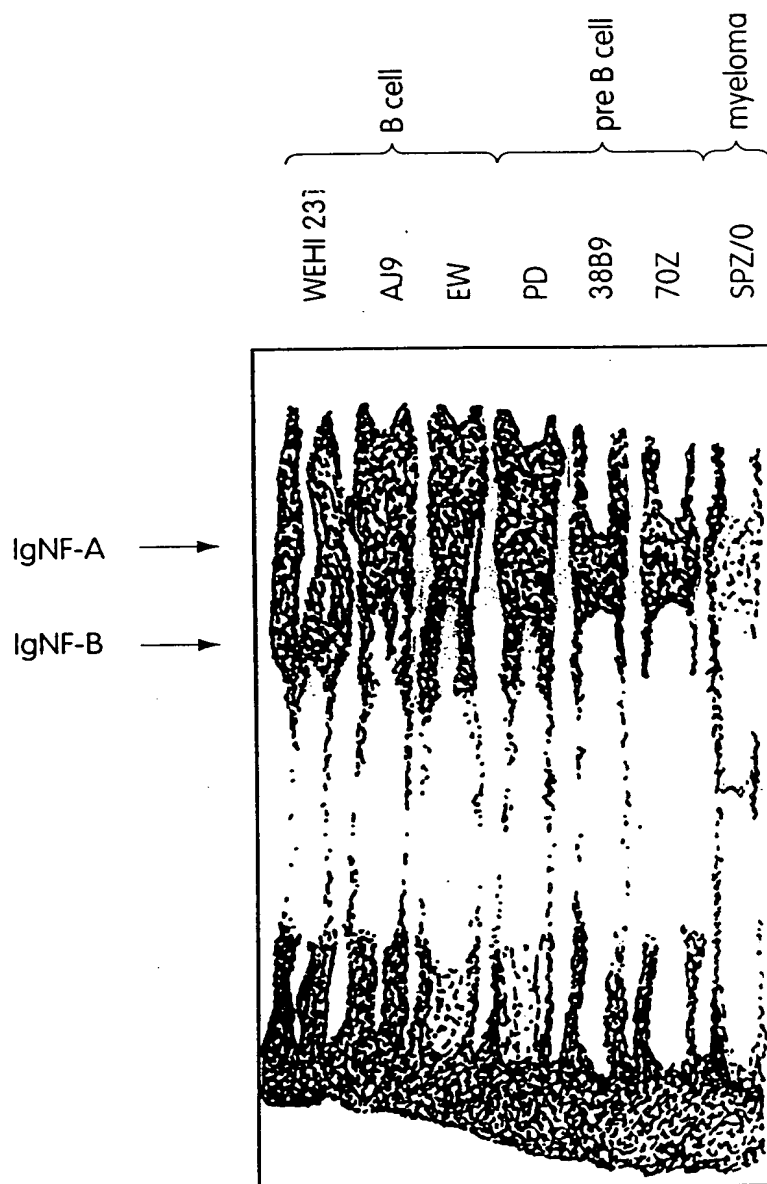


Fig. 7

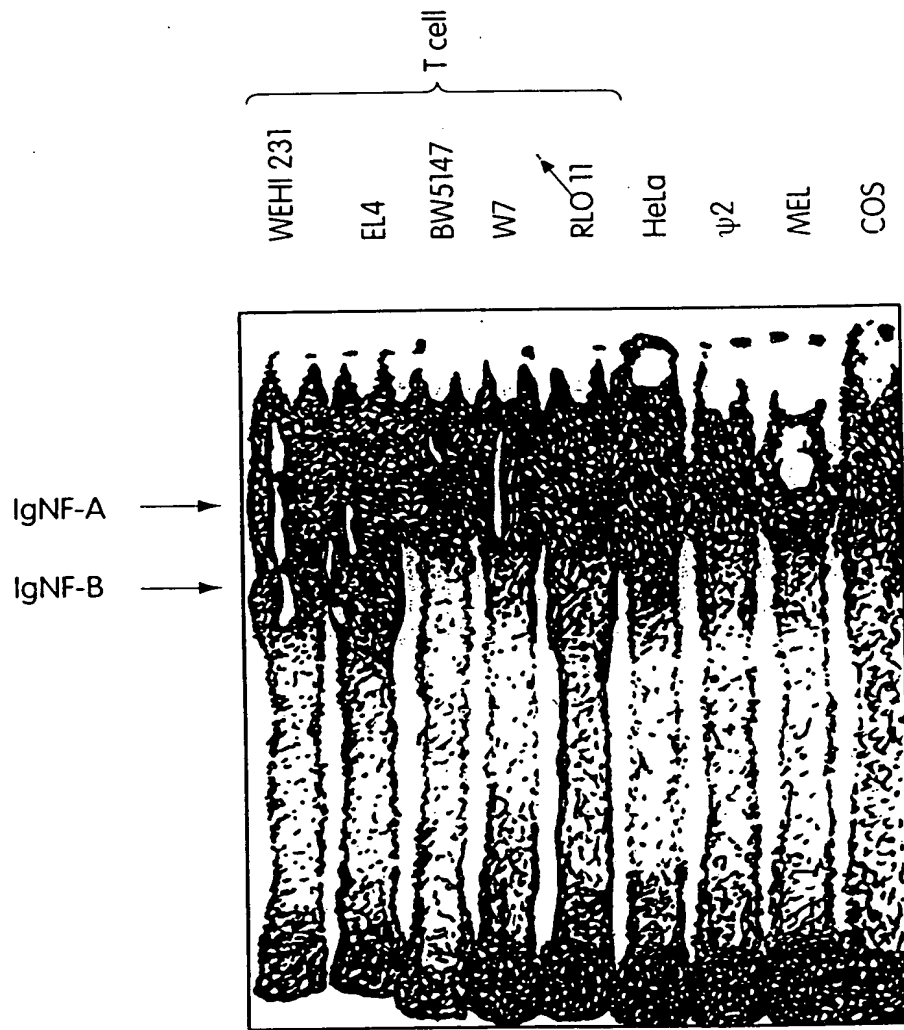
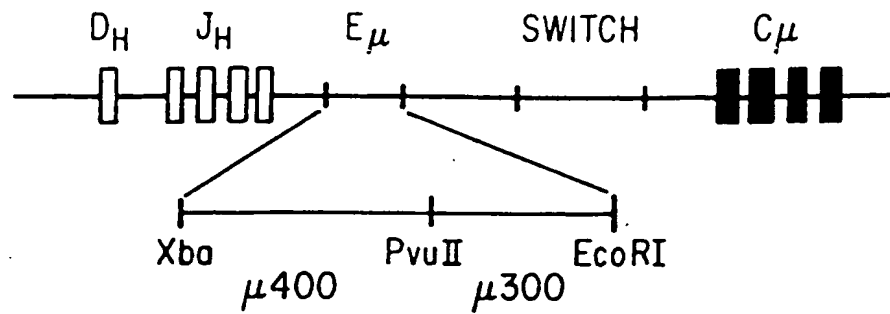


Fig. 8

Figure 9A



Fragment:  $\mu$ 300  
 Extract: EW  
 Competitor

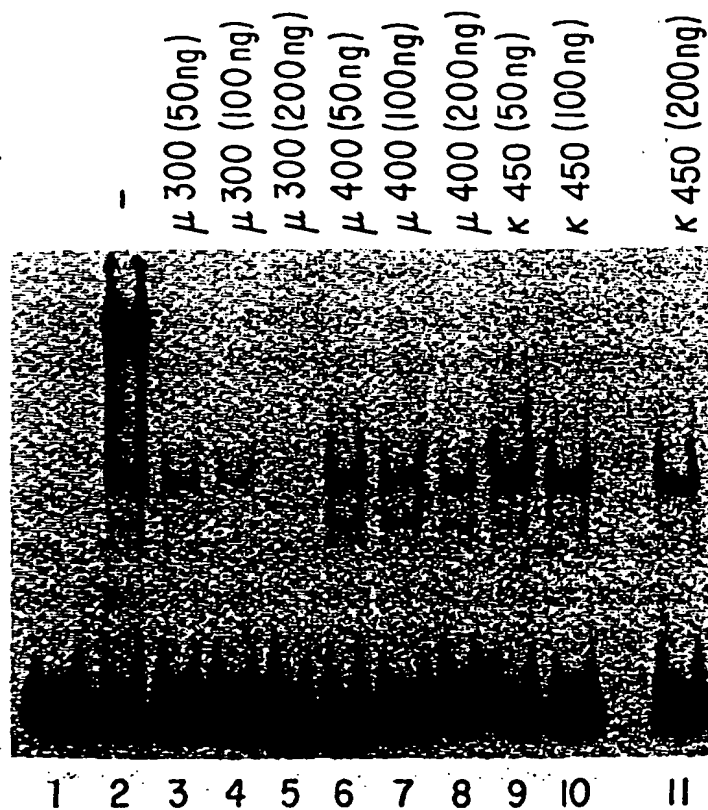


Figure 9B

Figure 10A

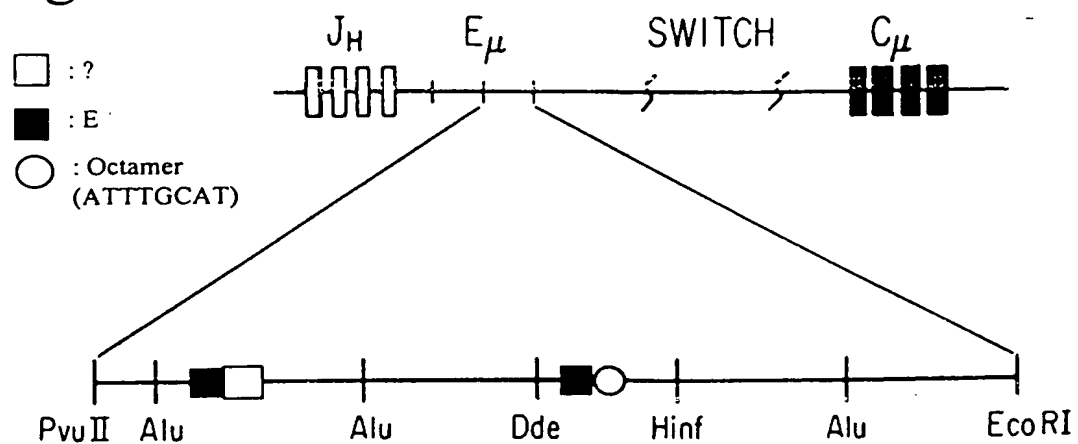
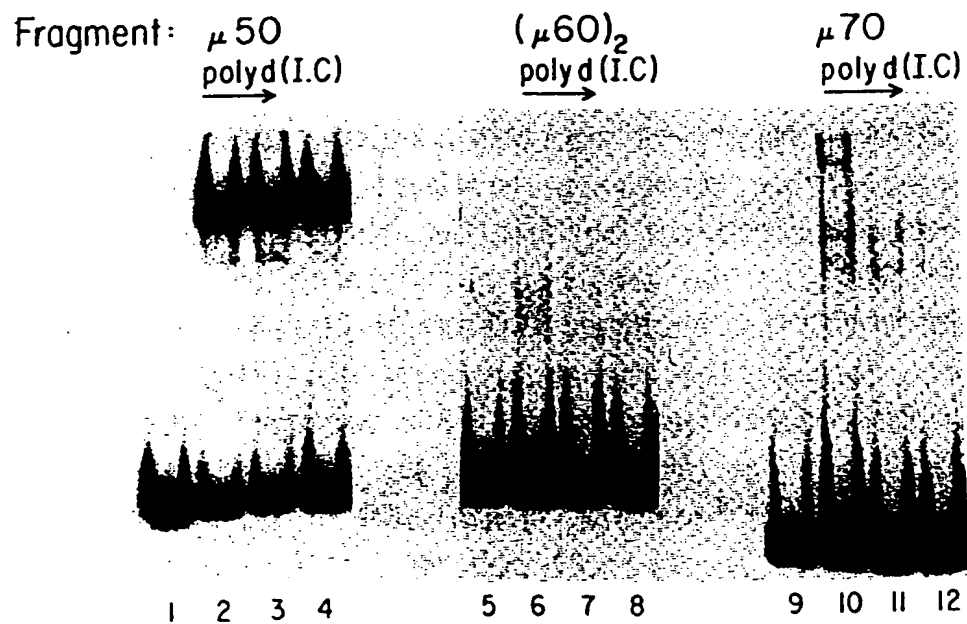


Figure 10B



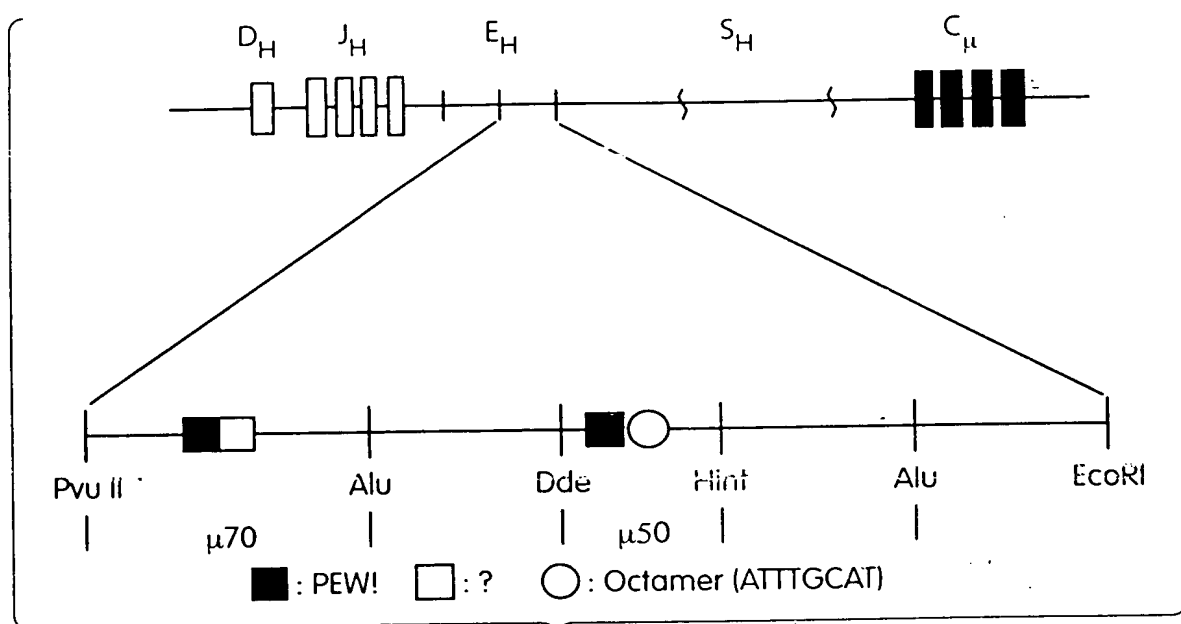


Fig. 10C

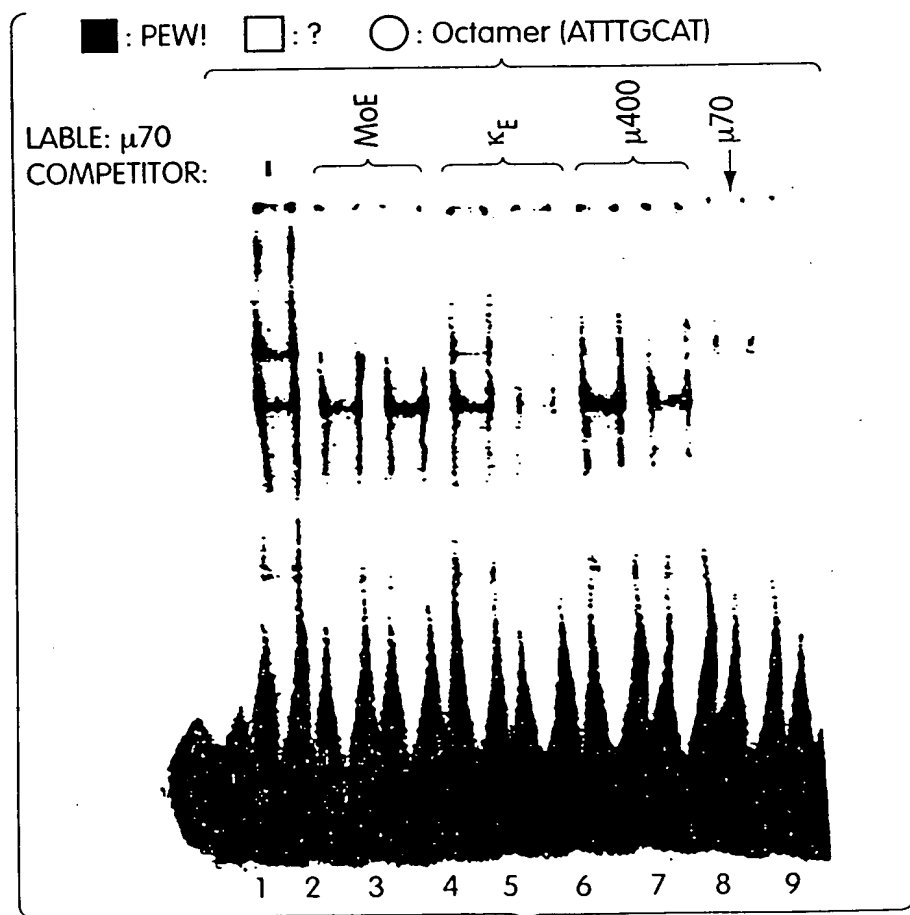


Fig. 10D

Figure 10E

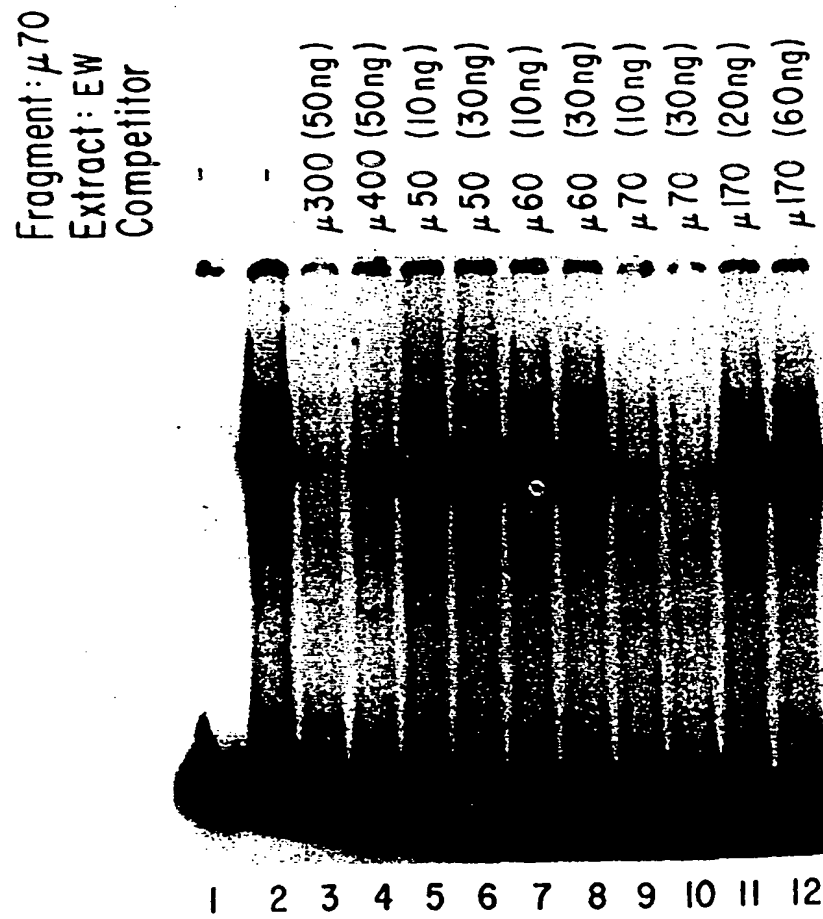


Figure 11A

Probe:  $\mu 50$ 

Figure 11B





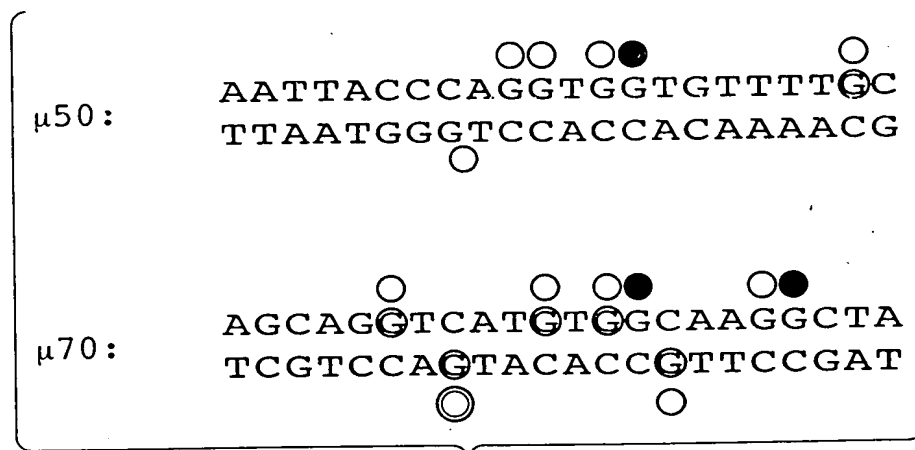


Fig. 11C

Figure 12A

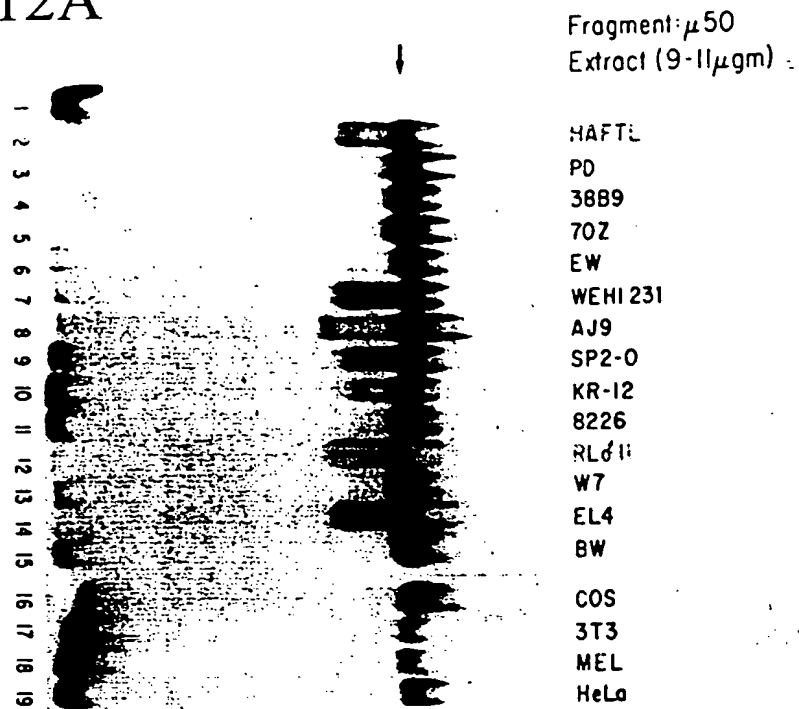


Figure 12B

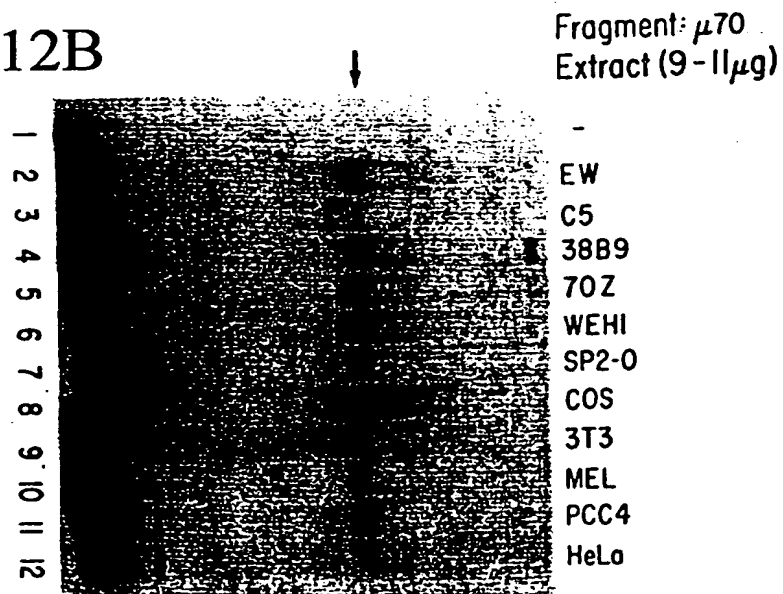


Figure 13A

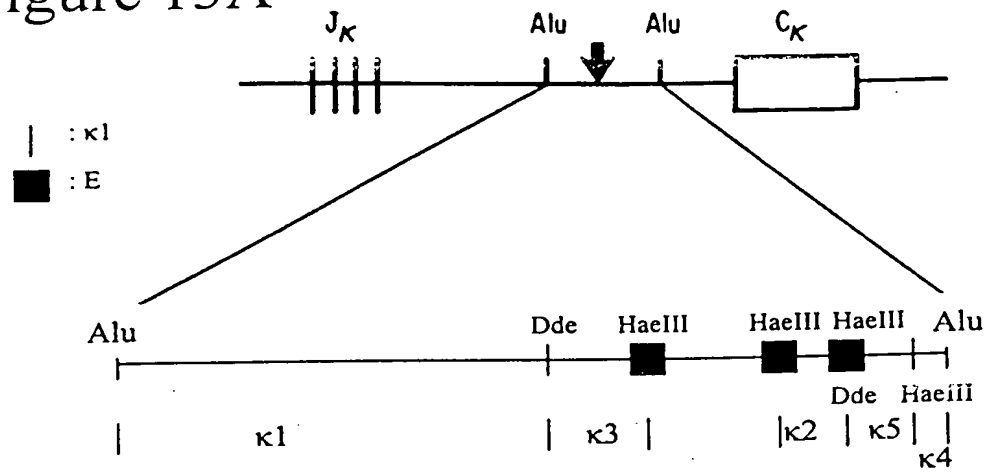


Figure 13B

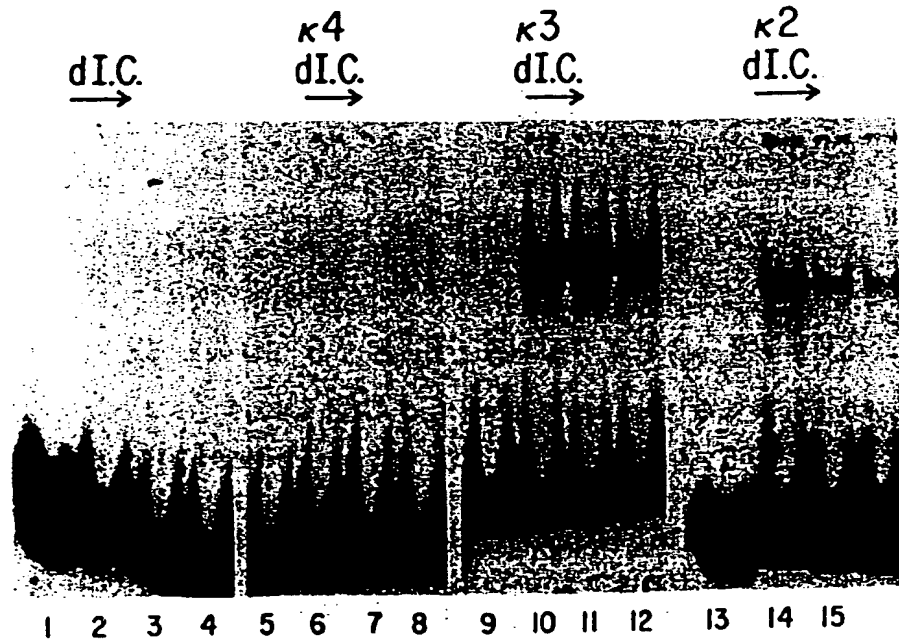


Figure 13C

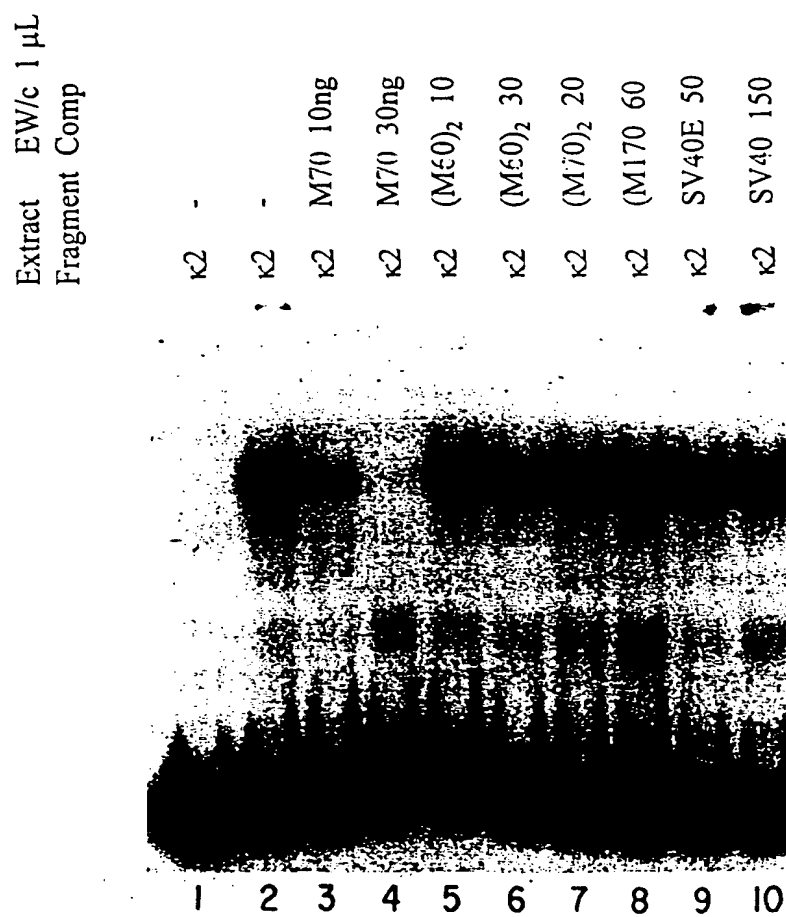
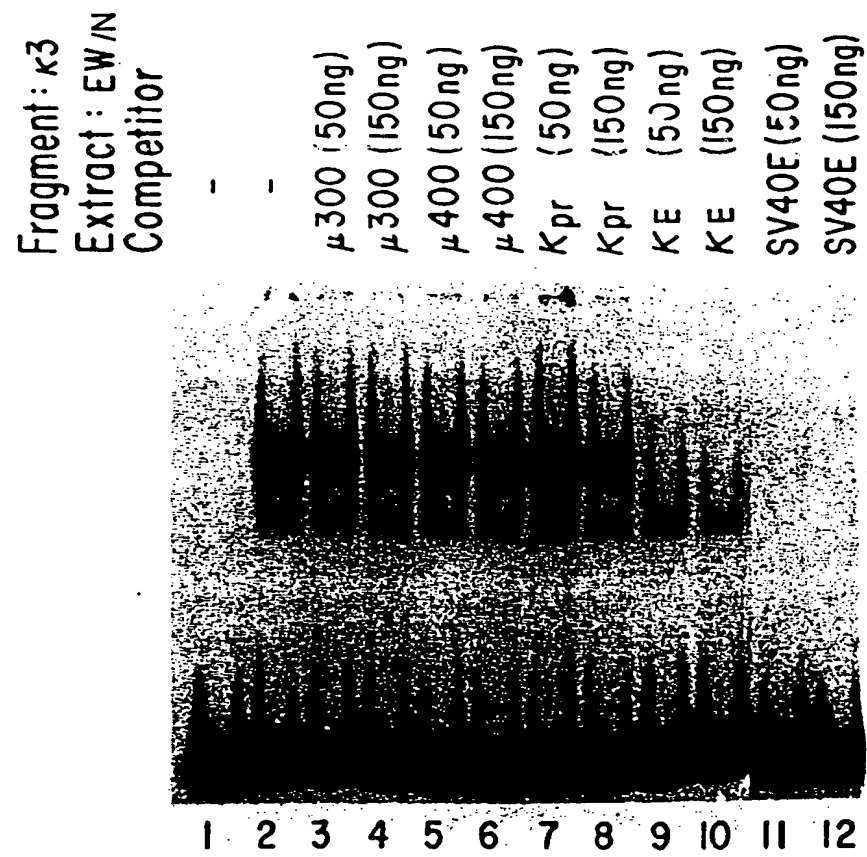


Figure 13D



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Figure 14



Figure 15A

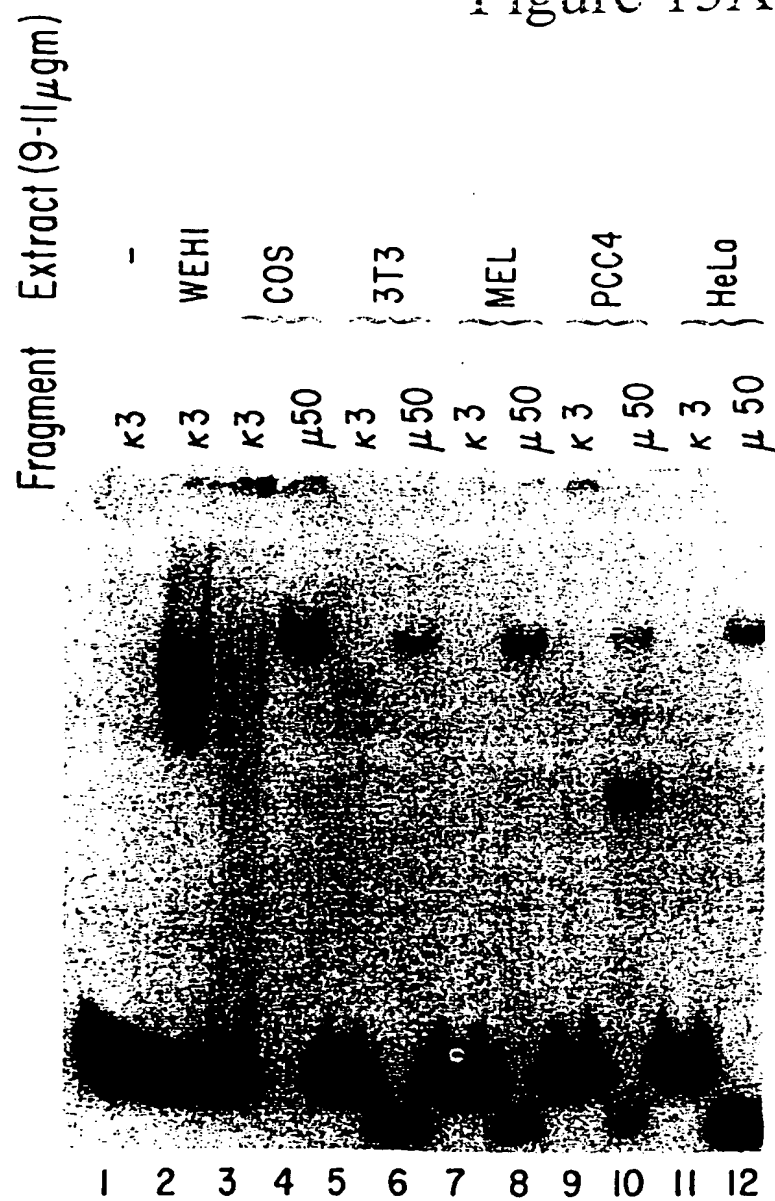
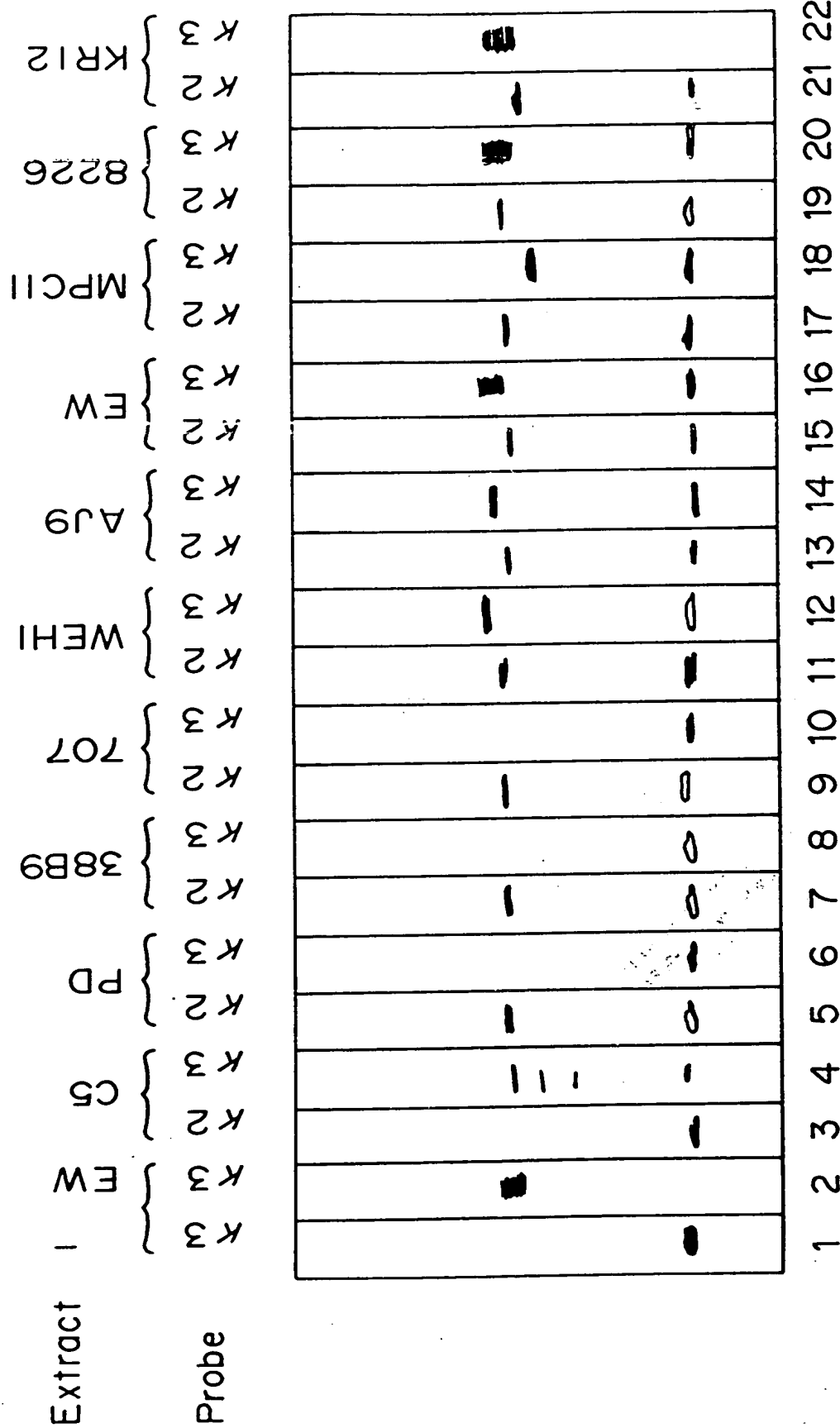


FIGURE 15b





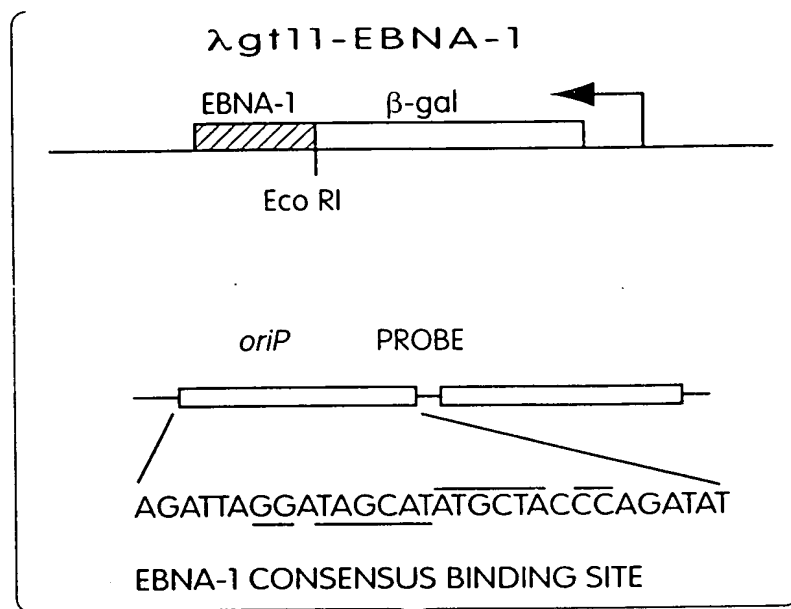


Fig. 16

MHC	<u>TGGGGATTCCCCA</u>
mhc1	TGcGGATTCCCaA
$\kappa$ EN	aGGGGACTttCCg
$\kappa$ en	aaattAcTttCCg <sub>a</sub>
SVEN	TGGGGAcTttCCA
HIV	TGGGGAcTttCCA
	aaGGGAcTttCCg

Fig. 17

CTGGGGCCCCCAGAGAGGTTGGGGAGATGACACAGTTGTTCCTCCCGAGCCCTGGCGGGCG

1 -----+-----+-----+-----+-----+-----+-----+

GGCAGCATGGTTCCTACTCCAGCATGGGGGCTCCAGAAATAAGAATGTCTAAGCCCCTGGAG

61 -----+-----+-----+-----+-----+-----+-----+

M V H S S M G A P E I R M S K P L E

GCCGAGAAGCAAGGTCTGGACTCCCCATCAGAGCACACAGACACCGAAAGAAATGGACCA

121 -----+-----+-----+-----+-----+-----+-----+

A E K Q G L D S P S E M T D T E R N G P

GACACTAATCATCAGAACCCCCAAAATAAGACCTCCCCATTCTCCGTGTCCCCAACTGGC

181 -----+-----+-----+-----+-----+-----+-----+

D T N H C N P Q N R T S P F S V S P T G

CCCAGTACAAAGATCAAGGCTGAAGACCCAGTGCGGATTTCAGCCCCAGCAGCACCCCTG

241 -----+-----+-----+-----+-----+-----+-----+

P S T K I K A E D P S G D S A P A A P L

CCCCCTCAGCCGGGCCAGCCTCATCTGCCCCAGGCCCAAATCATGTTGACGGGCAGCCAG

301 -----+-----+-----+-----+-----+-----+-----+

P P Q P A Q P N L P Q A Q L M L T G S Q

CTAGCTGGGGACATACAGCAGCTCCTCCAGCTCCAGCAGCTGGTGCTTGTGCCAGGCCAC

361 -----+-----+-----+-----+-----+-----+-----+

L A G D I Q Q L L Q L Q Q L V L V P G H

CACCTCCAGCCACCTGCTCAGTTCCTGCTACCGCAGGCCCAGCAGACCAGCCAGGCCTG

421 -----+-----+-----+-----+-----+-----+-----+

H L Q P P A Q F L L P Q A Q Q S Q P G L

CTACCGACACCAAATCTATTCCAGCTACCTCAGCAAACCCAGGGAGCTCTTCTGACCTCC

481 -----+-----+-----+-----+-----+-----+-----+

L P T P H L F Q L P Q Q T Q G A L L T S

CAGCCCCGGGGCCGGGCTTCCACACAGGCCGTGACCCGCCCTACGCTGCCCGACCCGCAC

541 -----+-----+-----+-----+-----+-----+-----+

Q P R A G L P T Q A V T R P T L P D P H

CTCTCGCACCCGCAGCCCCCCCCAAATGCTTGGAGCCACCATCCCACCCCGAGGAGCCCAGT

601 -----+-----+-----+-----+-----+-----+-----+

L S H P Q P P K C L E P P S H P E E P S

GATCTGGAGGAGCTGGAGCAATTGGCCCGCACCTTCAAGCAACGCCGCATCAAGCTGGGC

661 -----+-----+-----+-----+-----+-----+-----+

D L E E L E Q F A R T F K Q R R I K L G

TTCACGCAGGGTGATGTGGGCCTGGCCATGGGCAAGCTCTACGCCAACGACTTCAGCCAG

721 -----+-----+-----+-----+-----+-----+-----+

F T Q G D V G L A M G K L Y G N D F S Q

C G P G H G Q A L R Q R L Q P D

Fig. 18A

```

781  ACGACCATTTCCTCGAGGCCCTCAACCTGAGCTTCAAGAACATGTGCAAACCTCAAG
-----+-----+-----+-----+-----+-----+-----+
T T I S R F E A L N L S F K N M C K L K
D H F P L R G P Q P E L Q E H V Q T Q A

841  CCCCTCCTGGAGAAGTGGCTCAACGATGCAGAGACTATGTCTGTGGACTCAAGCCTGCCC
-----+-----+-----+-----+-----+-----+-----+
P L L E K W L N D A E T M S V D S S L P
P P G E V A Q R C R D Y V C G L K P A Q

901  AGCCCCAACCAAGCTGAGCAGCCCCAGCCTGGGTTTCGAGCCTGCCGGCCGGAGACGCAAG
-----+-----+-----+-----+-----+-----+-----+
S P N O L S S P S L G F E P A G R R R K
P Q P A E Q P Q P G F R A C M P E T Q E

961  AAGAGGACCAGCATCGAGACAAACGTCGCTTCGCCTTAGAGAAGAGTTTTCTAGCGAAC
-----+-----+-----+-----+-----+-----+-----+
K R T S I E T N V R F A L E K S F L A N
E D Q M R D K R P L R L R E E F S S E P

1021 CAGAAGCCTACCTCAGAGGAGATCCTGCTGATCGCCGAGCAGCTGCACATGGAGAAGGAA
-----+-----+-----+-----+-----+-----+-----+
Q K P T S E E I L L I A E Q L H M E K E
E A Y L R G D P A D R R A A A H G E G S

1081 GTGATCCGCGTCTGGTTCTGCAACCGGCCCCAGAAGGACAAACGCATCAACCCCTGCAGT
-----+-----+-----+-----+-----+-----+-----+
V I R V W F C N R R Q K E K R I H P G S
D P R L V L Q P A P E G E T H Q P L Q C

1141 GCGGCCCCCATGCTGCCCAGCCCAGGGAAGCCGGCCAGCTACAGCCCCCATATGGTCACA
-----+-----+-----+-----+-----+-----+-----+
A A P M L P S P G K P A S Y S P H H V T
G P H A A Q P R E A G Q L Q P P Y G H T

1201 CCCCAGGCGGCGGGGACCTTACCGTTGTCCCAAGCTTCCAGCAGTCTGAGCACAACA
-----+-----+-----+-----+-----+-----+-----+
P Q G G A G T L P [L] S Q A S S S [L] S T T
P A G R G D L T V V P S F Q Q S E H N S

```

Fig. 18A  
(CONTINUED)

```

GTTACTACCTTATCCTCAGCTGTGGGGACGCTCCACCCCAGCCGGACAGCTGGAGGGGGT
1261 -----+-----+-----+-----+-----+-----+-----+
V T T [L] S S A V G T [L] H P S R T A G G G
Y Y L I L S C G D A P P Q P D S N M G W

GGGGGCGGGGGCGGGGCTGCGCCCCCCTCAATTCCATCCCCTCTGTCACTCCCCACCC
1321 -----+-----+-----+-----+-----+-----+-----+
G G G G G A A P P L N S I P S V T P P P
G M G R G C A P P Q F H P L C H S P T P

CCGGCCACCACCAACAGCACAAACCCCAGCCCTCAAGGCAGCCACTCGGCTATCGGCTTG
1381 -----+-----+-----+-----+-----+-----+-----+
P A T T N S T N P S P Q G S H S A I G L
G H N Q Q H K P Q P S R Q P L G Y M L V

TCAGGCCTGAACCCCAGCACGGGGTAAGTGGGTGCACGTGGGAAGCTGTGGGGAGAAGCA
1441 -----+-----+-----+-----+-----+-----+-----+
S G L H P S T G +
A P E P Q N G V S G C T W E A V G R S R

GCGTCGCTGCTCCTTCTAGGGTGGGGAGCGGCACCCCAGTTATGTTGGCAGGTCCCTGCC
1501 -----+-----+-----+-----+-----+-----+-----+
V A A A S R V G S G T P V M L A G P C P

CCTGCTAATGCCTCTGCTTTGCCTCTTGCAGAAGCACAAATGGTGGGGTTGAGCTCCGGCT
1561 -----+-----+-----+-----+-----+-----+-----+
C +

GAGTCCAGCCCTCATGAGCAACAACCCTTTGGCCACTATCCAAGGTGCGTGCTGCCTCAT
1621 -----+-----+-----+-----+-----+-----+-----+

GTCACACCCATCGTCACCAGCCCCGGAATTCGAG
1681 -----+-----+-----+-----+-----+-----+-----+

```

Fig. 18A  
(CONTINUED)

CCTCAAGGCAGCCACTCGGCTATCGGCTTGTCAGGCCTGAACCCCAGCACGGGCCCTGGC  
 1411 -----+-----+-----+-----+-----+-----+-----+  
 P Q G S H S A I G L S G I N P S T G P G  
 S A Q P L G Y R L V M P E P Q M G P N P  
 CTCTGGTGGAAACCCTGCCCCTTACCAGCCTTGATGGCAGCGGGAATCTGGTGGCTGGGGGC  
 1471 -----+-----+-----+-----+-----+-----+-----+  
 L W W N P A P Y Q P .  
 L V E P C P L P A L M A A G I W C W G Q  
 AGCCGGTGCAGCCCCGGGGAGCCCTGGCCTGGTGTGACCTCGCCGCTCTTCTTGAATCATGC  
 1531 -----+-----+-----+-----+-----+-----+-----+  
 P V Q P R G A L A W .  
 TGGGCTGCCCCCTGCTCAGCACCCCGCCTGGTGTGGGCCTGGTCTCAGCAGCGGCTGCGGG  
 1591 -----+-----+-----+-----+-----+-----+-----+  
 TGTGGCAGCCTCCATCTCCAGCAAGTCTCCTGGCCTCTCCTCCTCATCCTCTTCATCCTC  
 1651 -----+-----+-----+-----+-----+-----+-----+  
 ATCCTCCTCCTCCTCCACTTGCAGCGAGACGGCAGCACAGACCCTGGAGGTCCAGGGGGG  
 1711 -----+-----+-----+-----+-----+-----+-----+  
 CCCGAGGCAGGGTCCAAACCTGAGTGAGGGCCAGCCATGCCTCCCCTCCCATTCTCTGG  
 1771 -----+-----+-----+-----+-----+-----+-----+  
 TCCCTGCCCCGGAATTC  
 1831 -----+-----

Fig. 18B

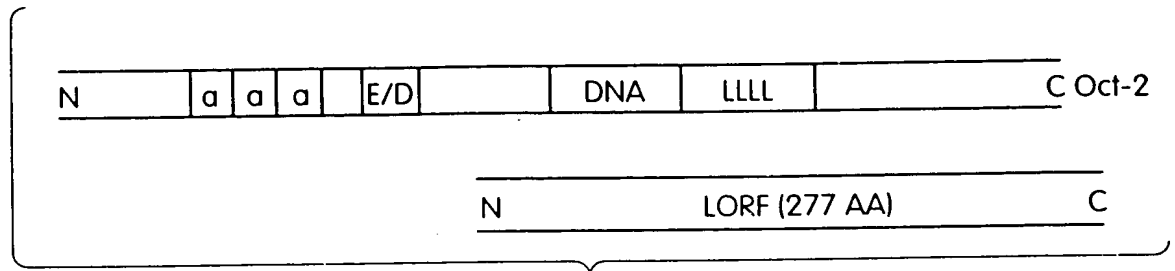


Fig. 18C

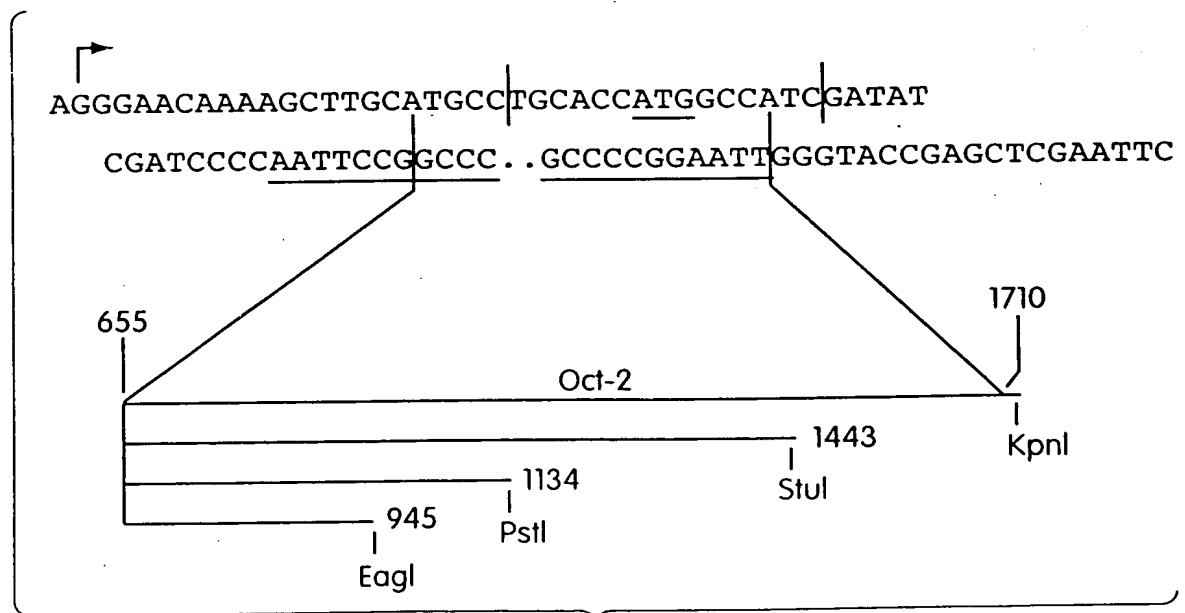


Fig. 19

	helix	turn	helix	
Oct-2	RRKKRTSIETNVRFALEKSEFLANQKPTSEEILLIAEQLHMEKEVIRVWE	↓	↓	CNRRBQKEKRINPC
a1	SPKGKSSISPQARAFLEQVFRKQSLNSKEEVAKKCGITPLQVRVWE	*	*	INKRMRSK
α2	KPYRGHRTKENVRILESWFAKNPYLDTKGLENLMKNTSLSRIQIKNVVSNRRRKEKTIT	*	*	
pho2	QRPKRTRAKGEALDVLRKKFEINPTPSLVERKKISDLIGMPEKNVRIWE	*	*	QNRRRAKLRRKKQ
mec-3	RRGPRTTIKQNQLDVINEMFSNTPKPSKHARAKLALETGLSMRVIOVWE	*	*	QNRRBSKERRLK
cut	SKKQBVLFSEEQKEAIRLAFALDPYPNVGTIEFLANELGLATRTITNWE	*	*	HNHMRMLKQQV
en	EKRPTAFSSSEQLARLKREFNENRNYLTERRRQQLSSELGLNEAQIKIWE	*	*	QNKRRAKIKKST
Antp	RKRGQTYTRYQTLEKEEFHNRYLTRRRRIEIAHALCLTERQIKIWE	*	*	QNRRBMKWKKEN
	R	Q	L	Y
			L	WE N R

(conserved  
residues in  
homeo-box  
family)

Fig. 20

Figure 21A

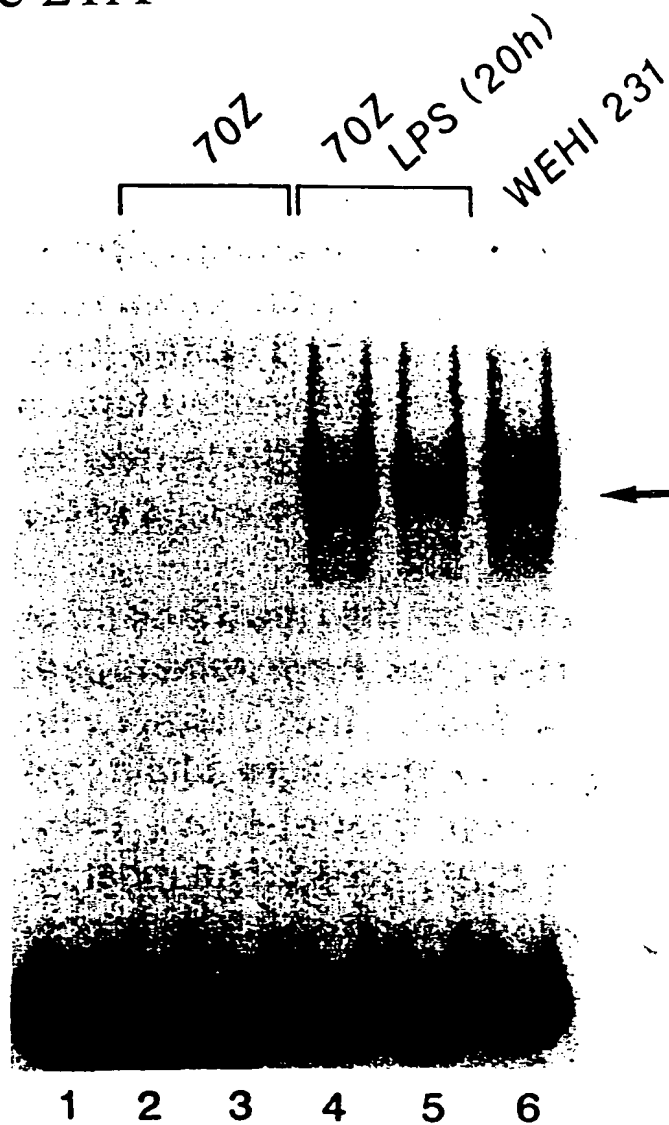




Figure 21B

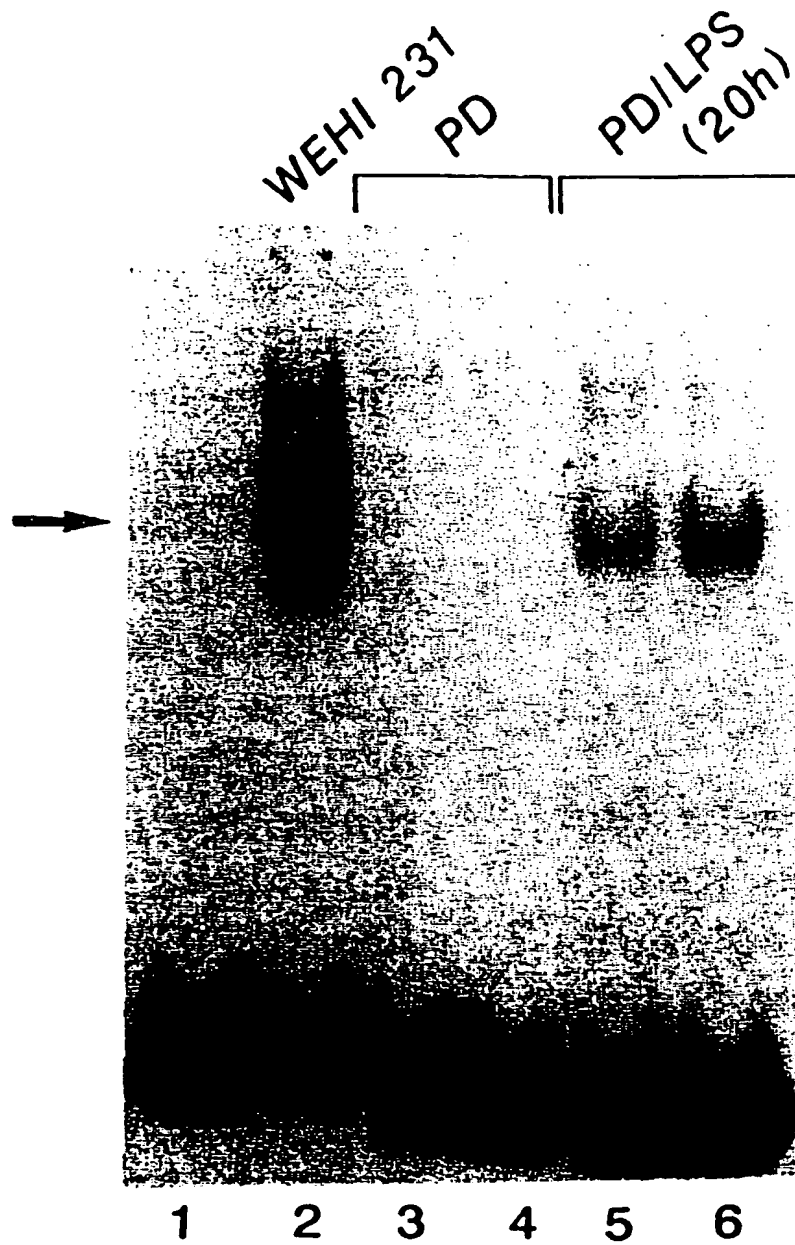


Figure 22A

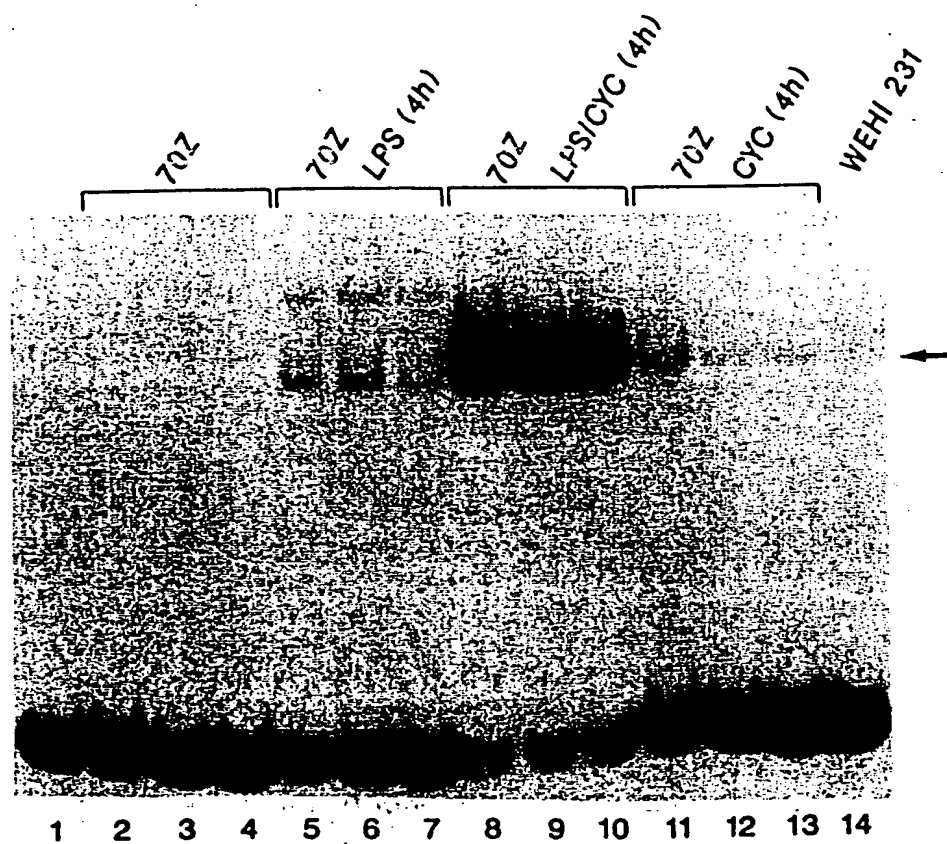


Figure 22B

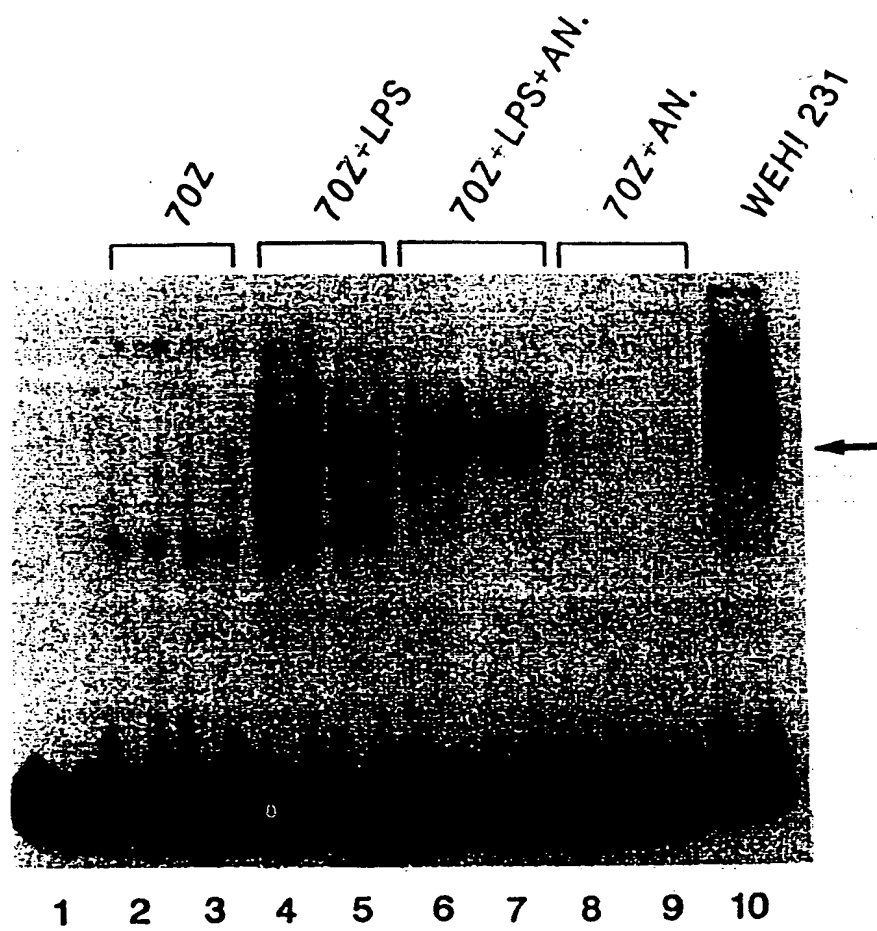


Figure 23A

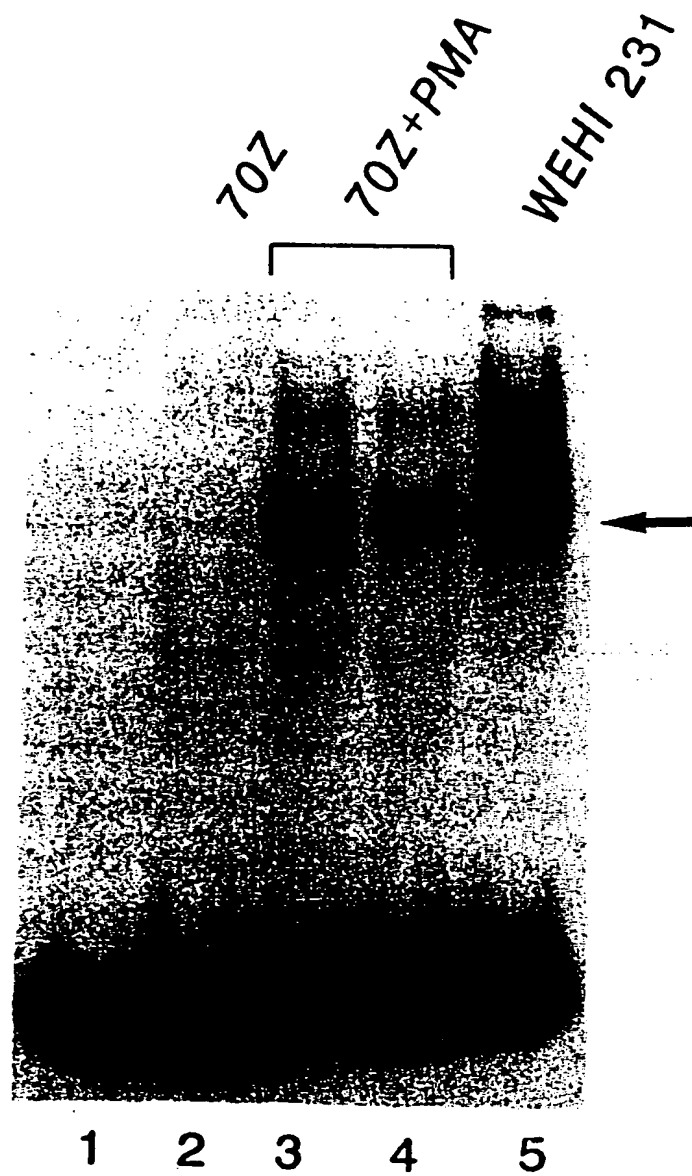


Figure 23B

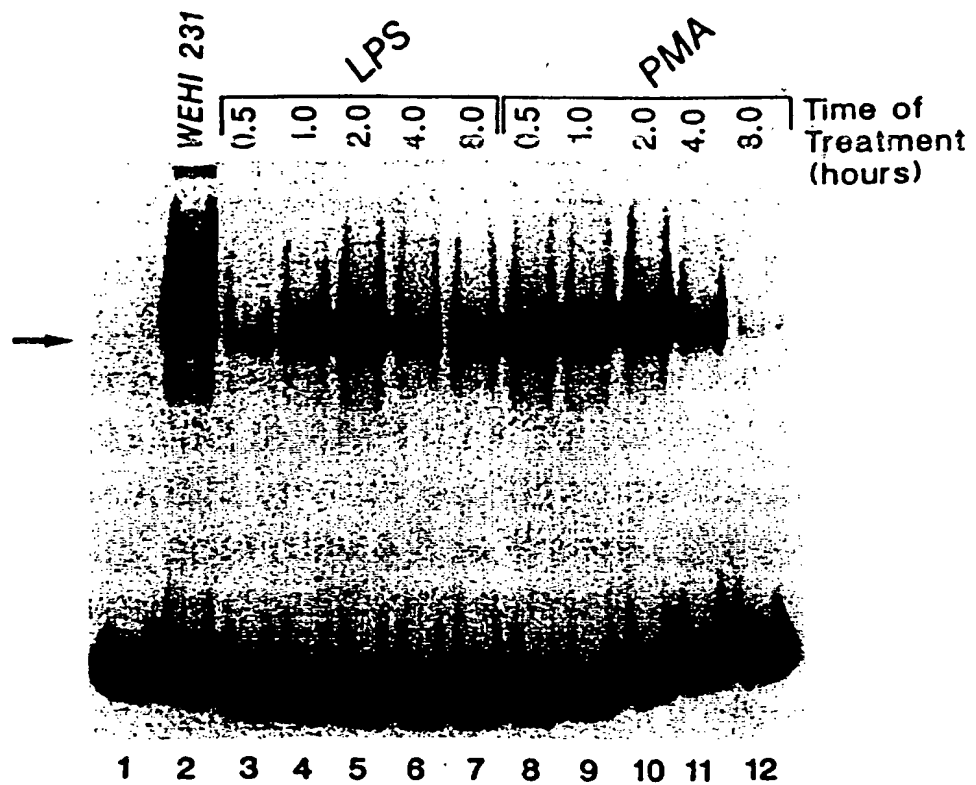


Figure 24A

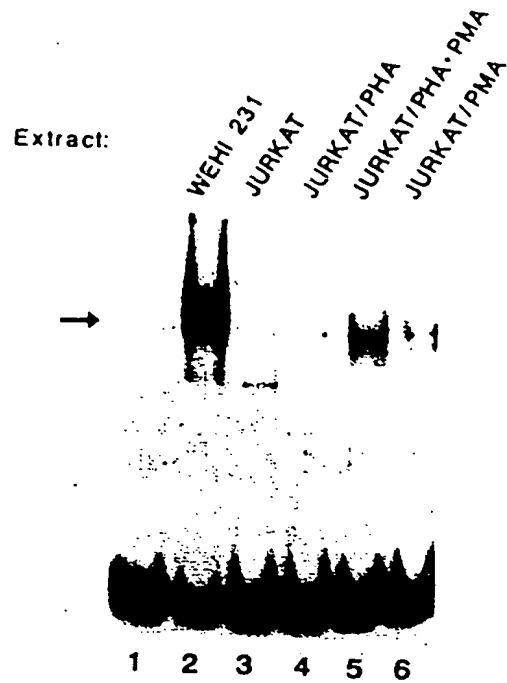


Figure 24B

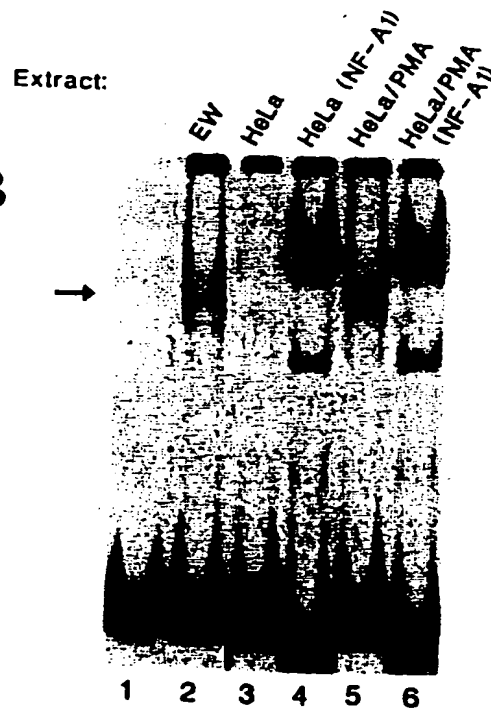
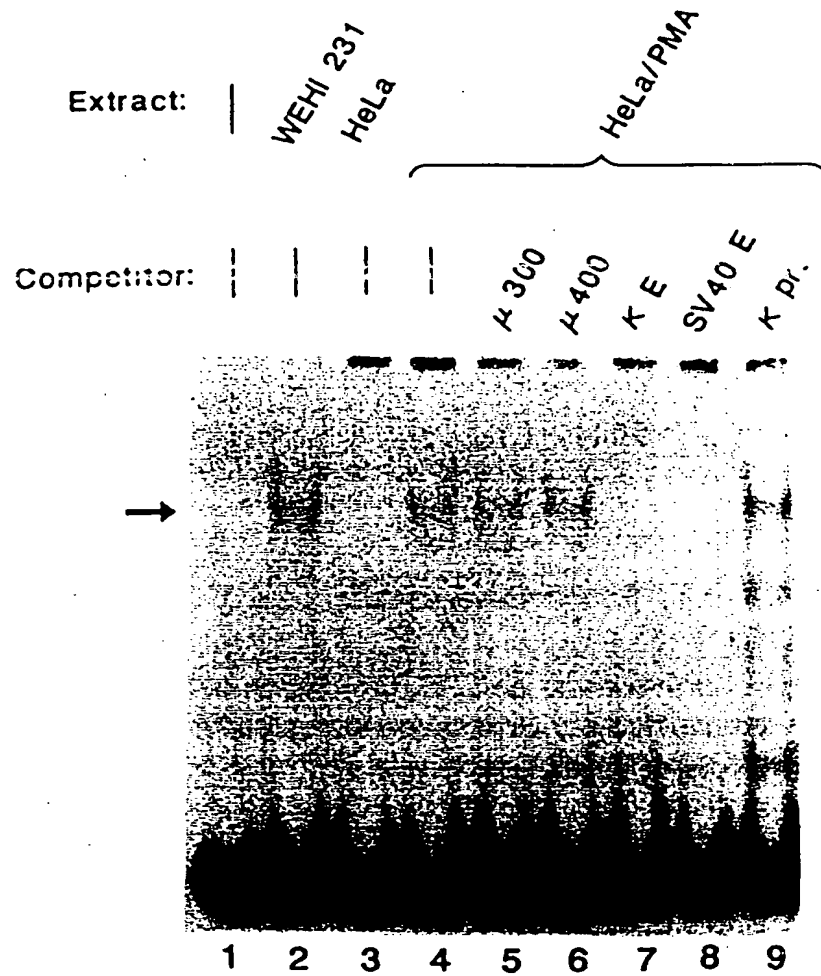


Figure 24C



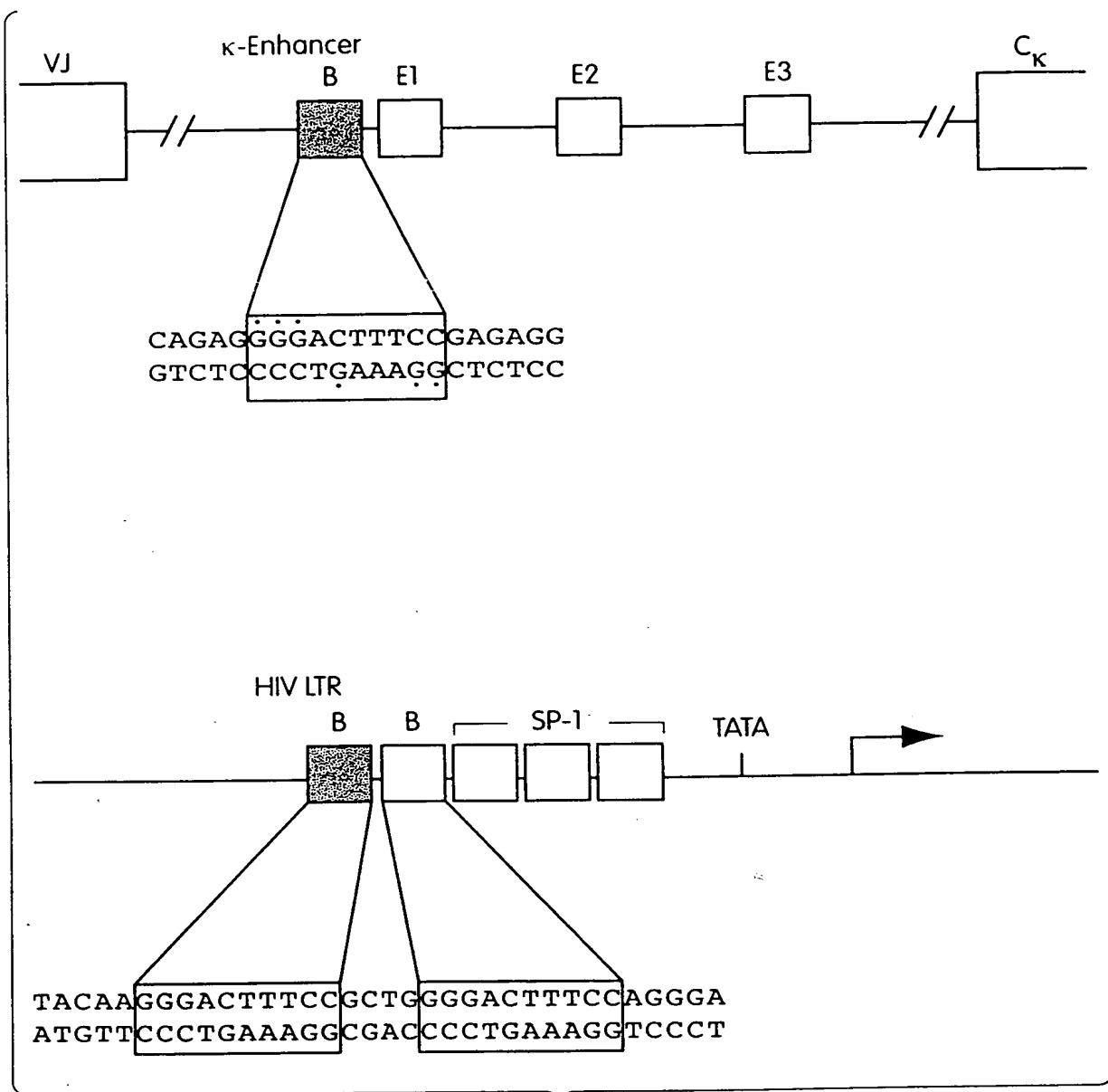


Fig. 25



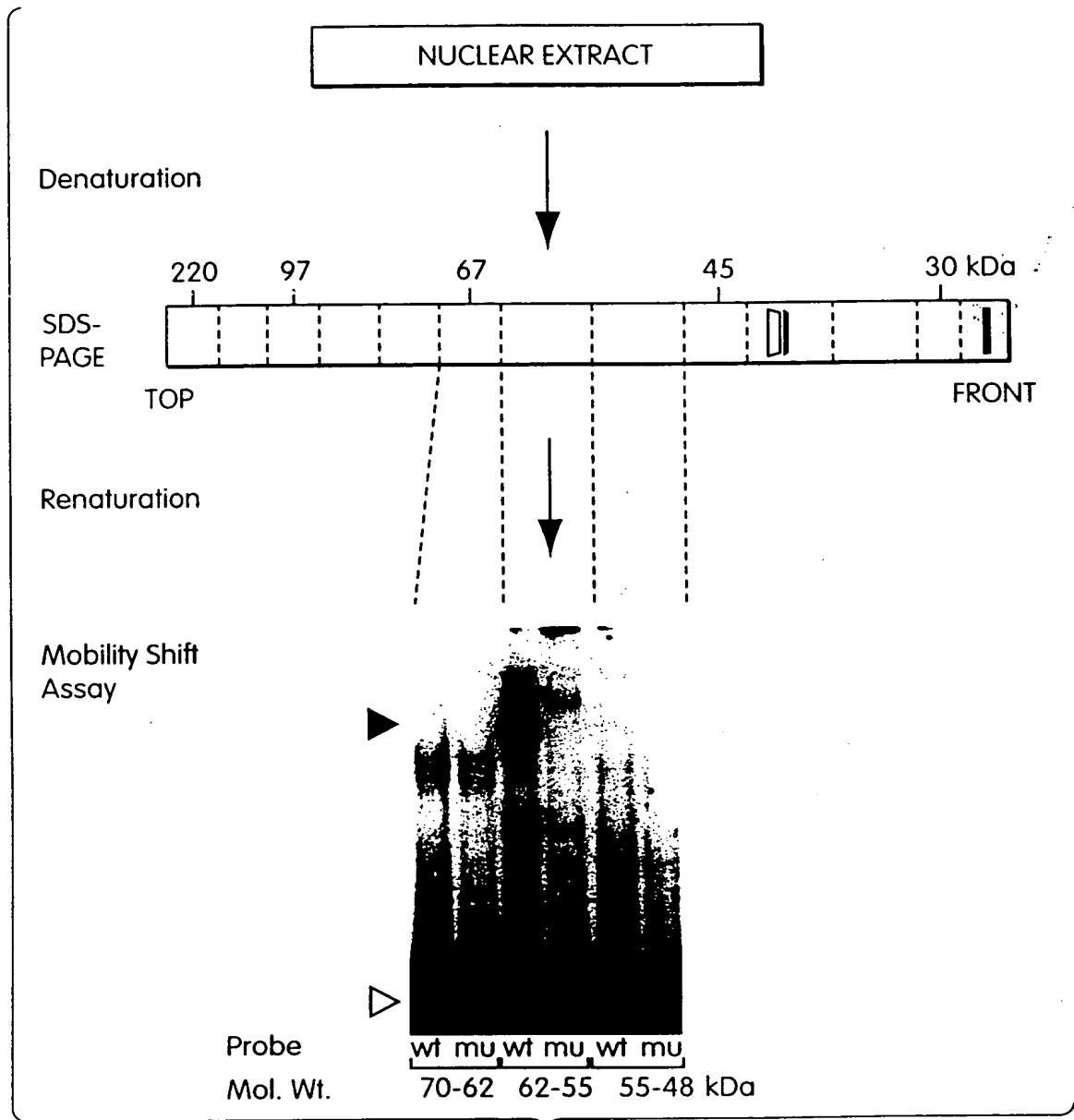


Fig. 26A

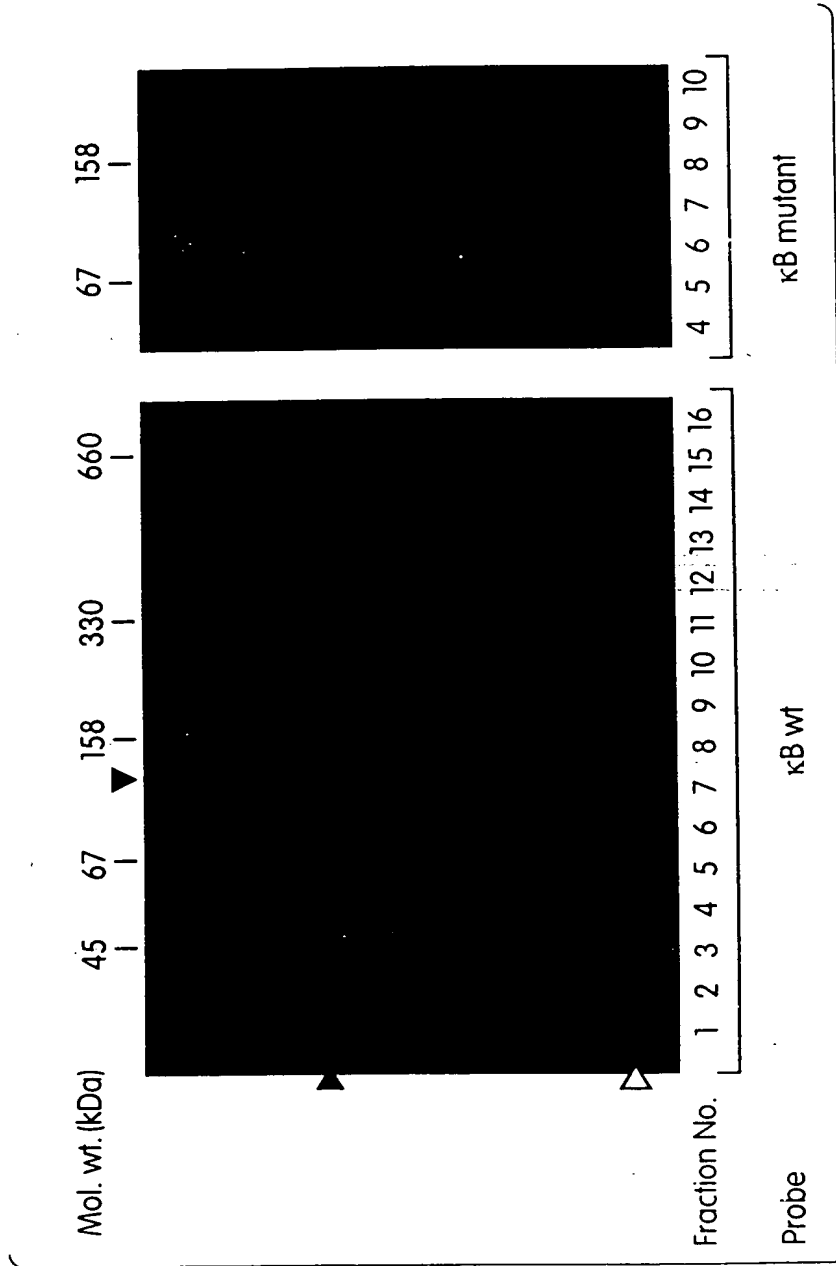


Fig. 26B

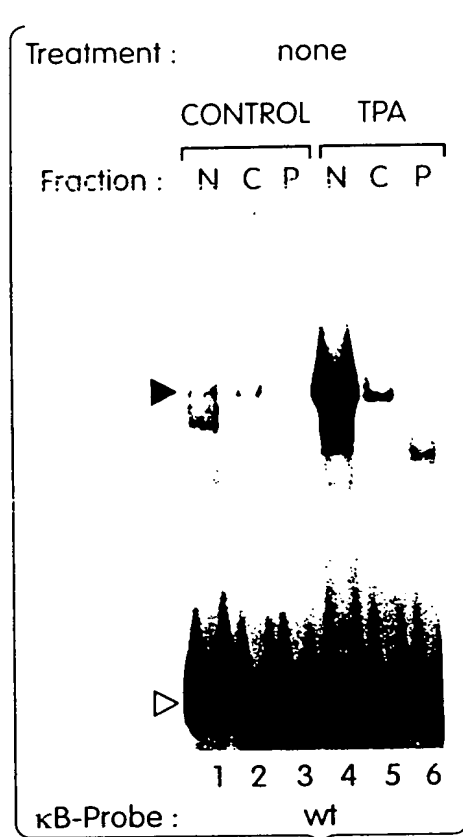


Fig. 27A

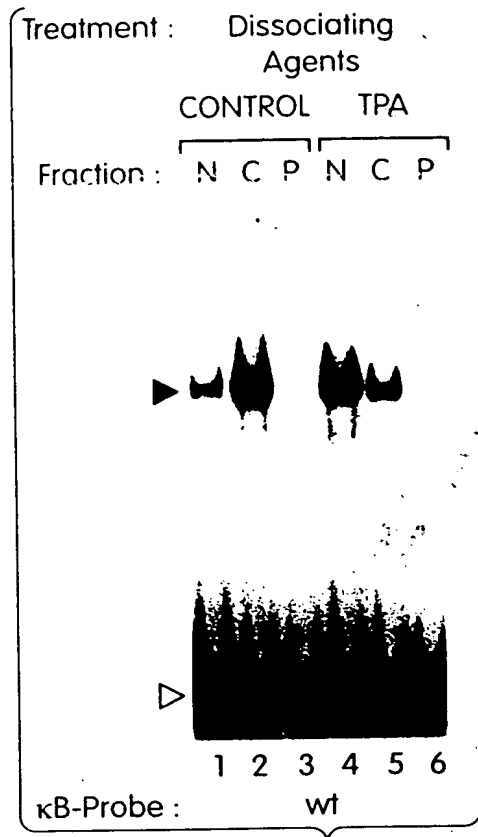


Fig. 27B

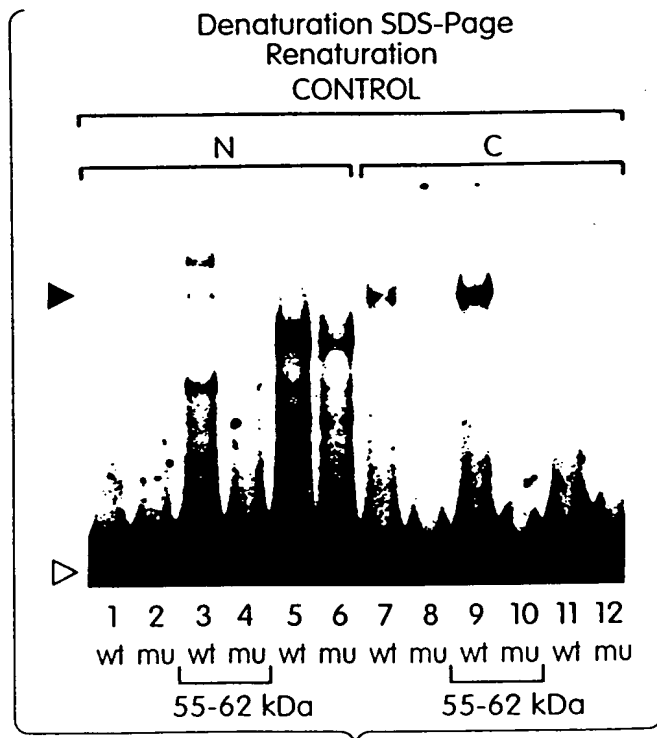


Fig. 27C

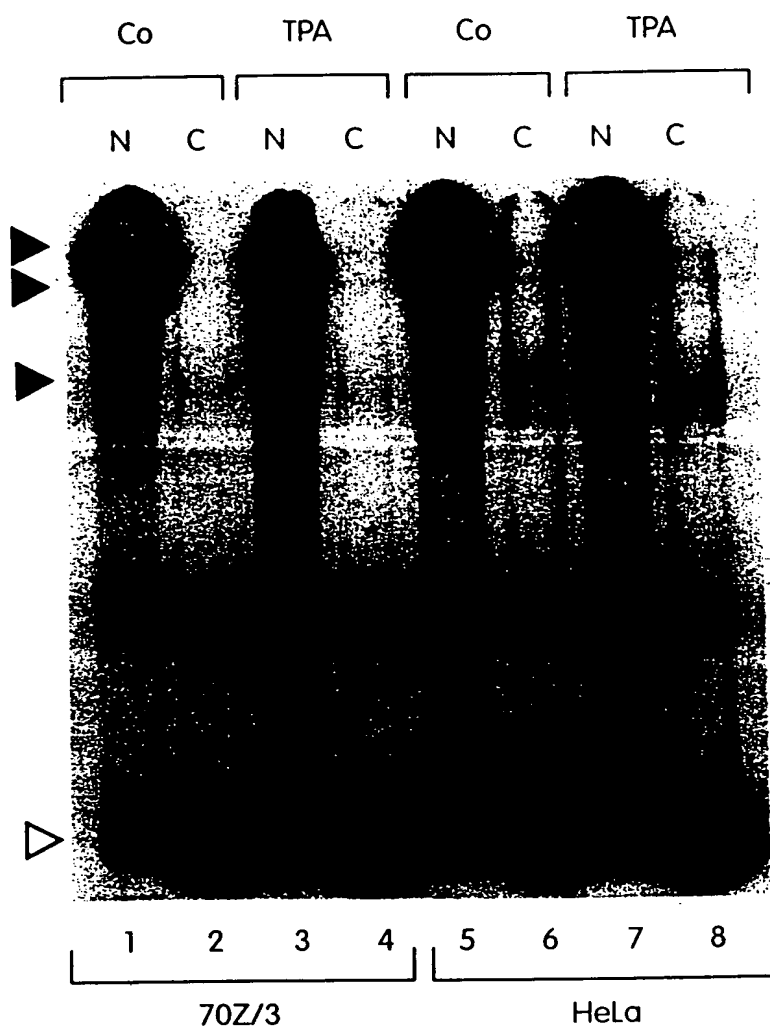


Fig. 28

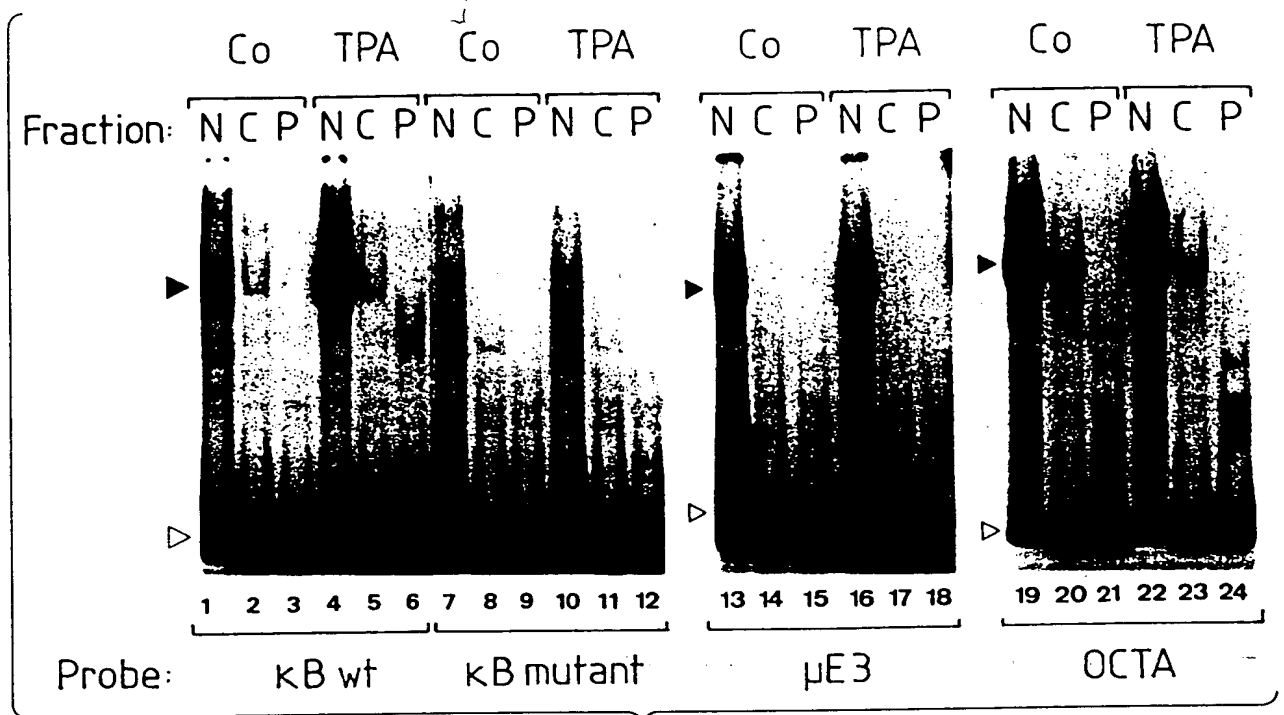


Fig. 29

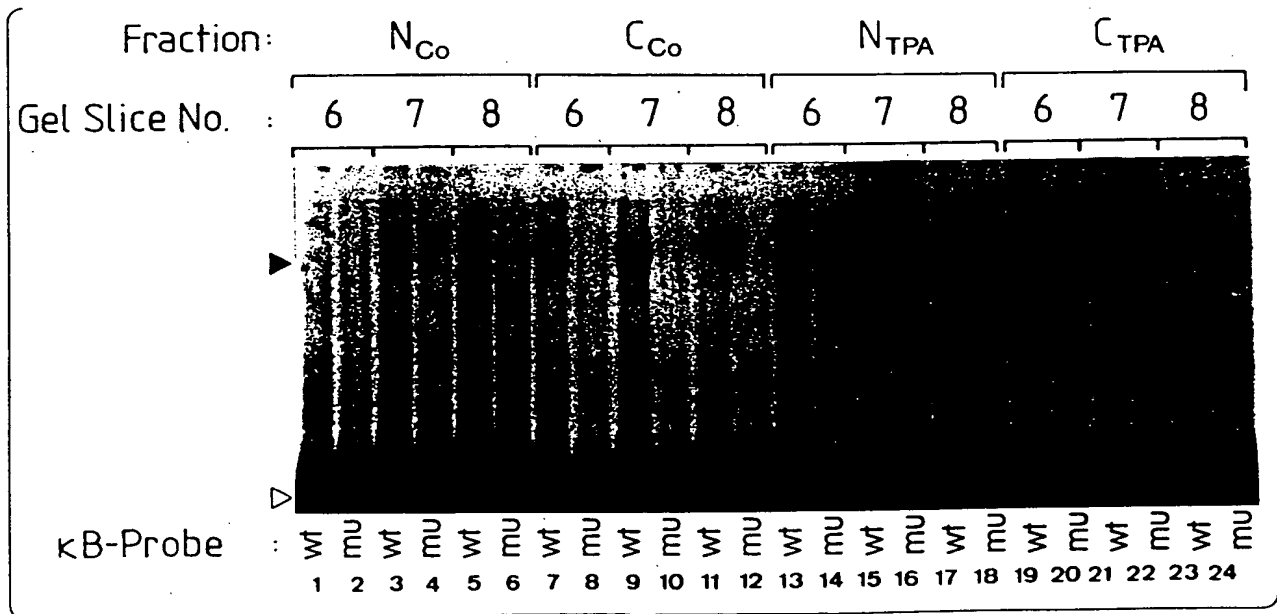


Fig. 30

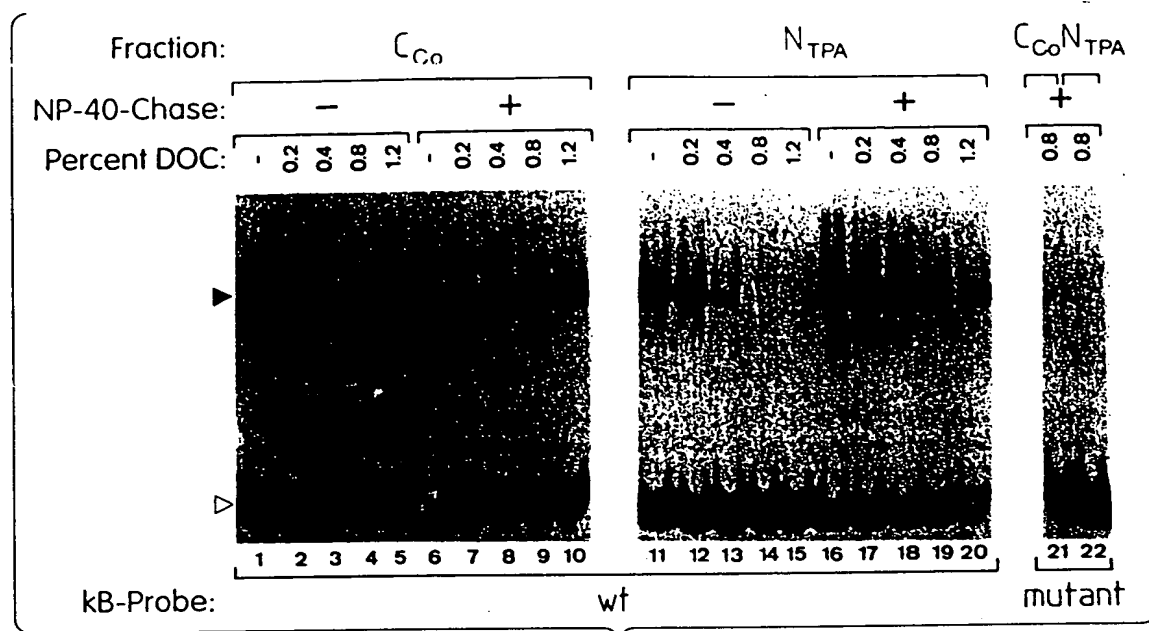


Fig. 31A

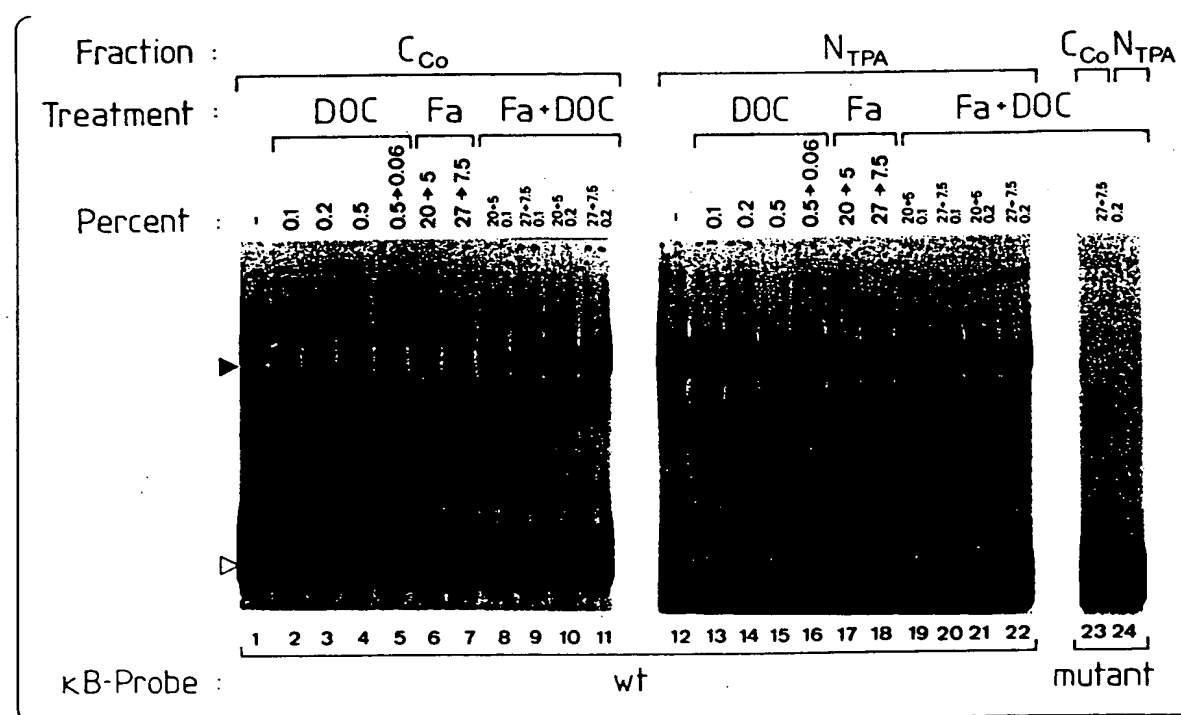


Fig. 31B

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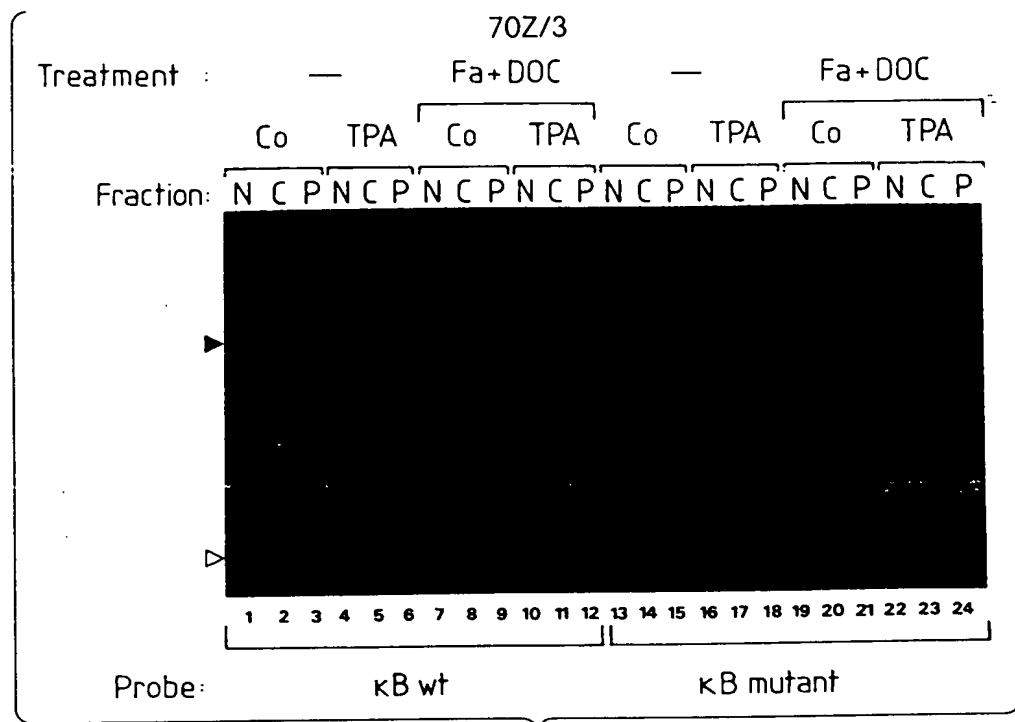


Fig. 32

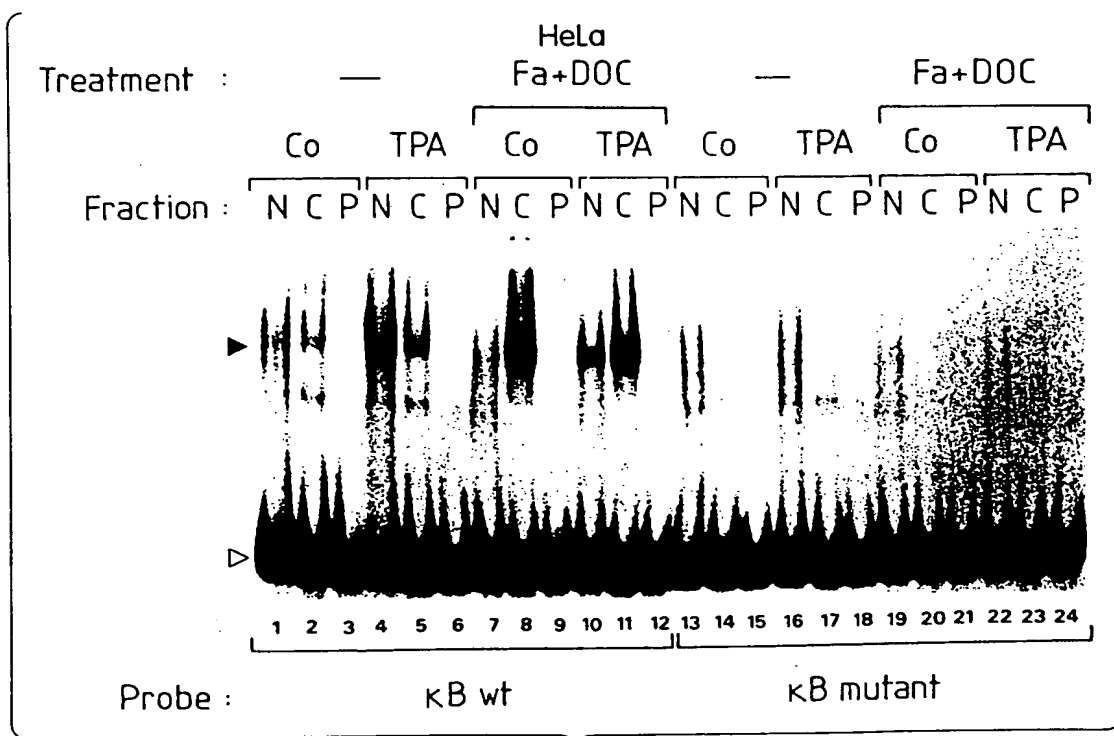


Fig. 33

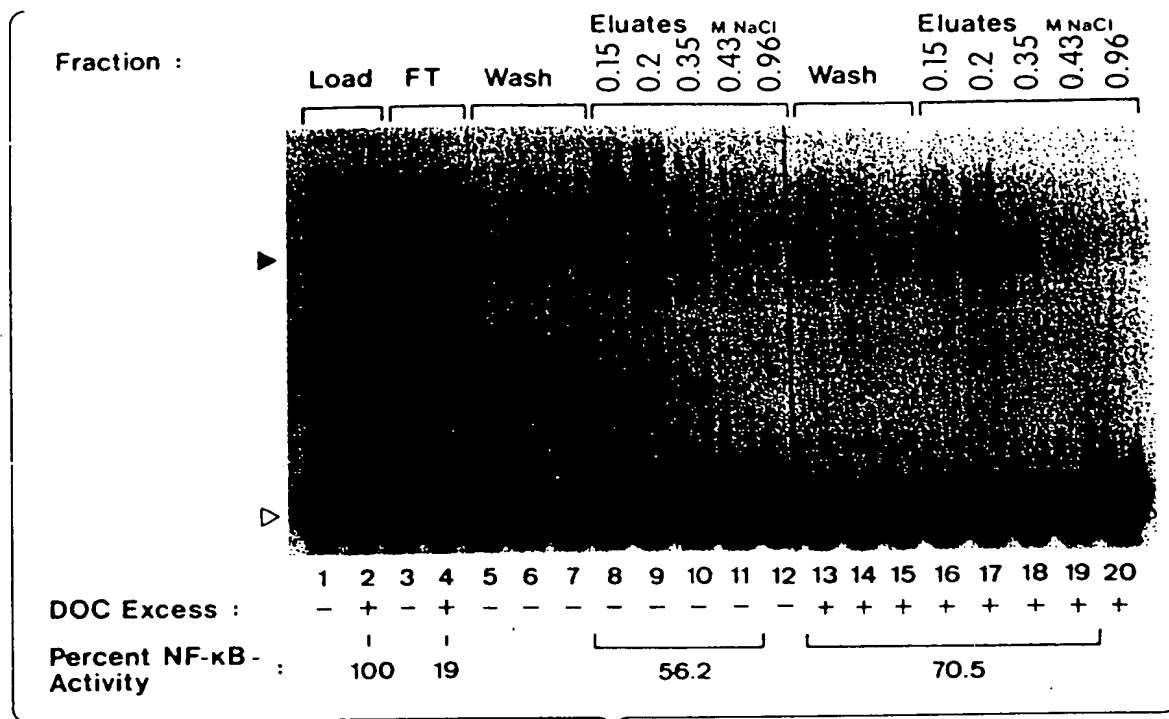


Fig. 34A

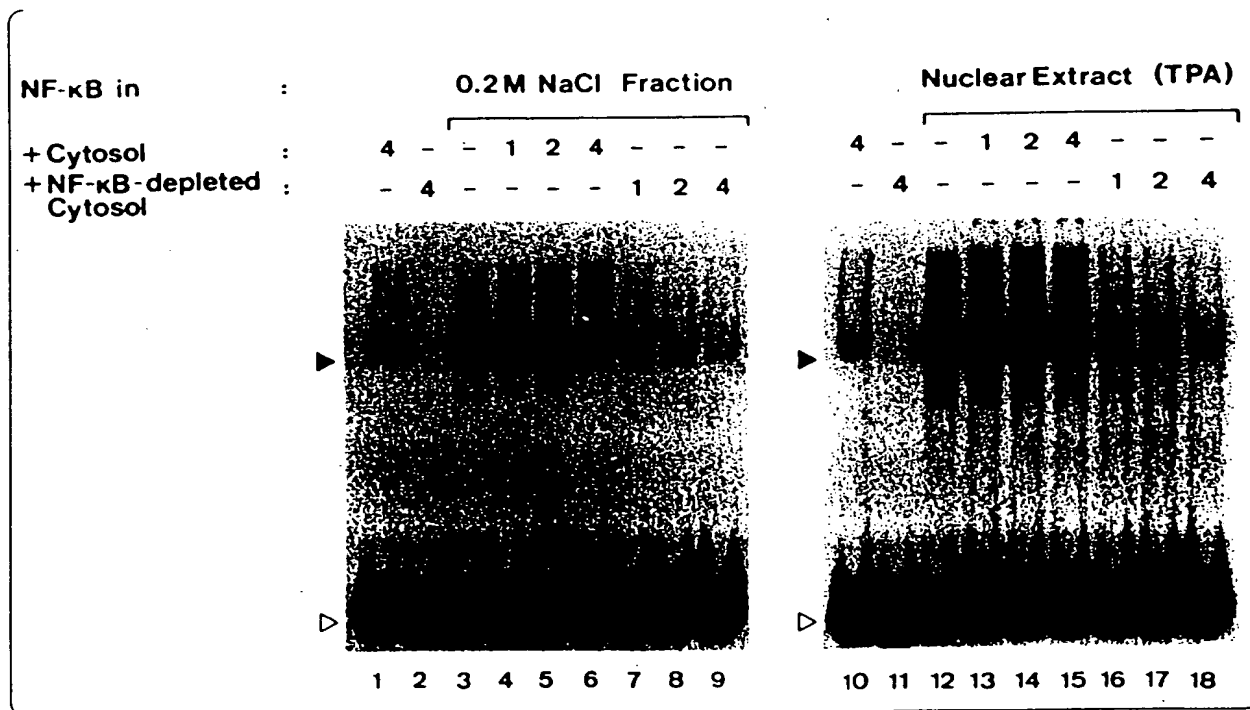


Fig. 34B



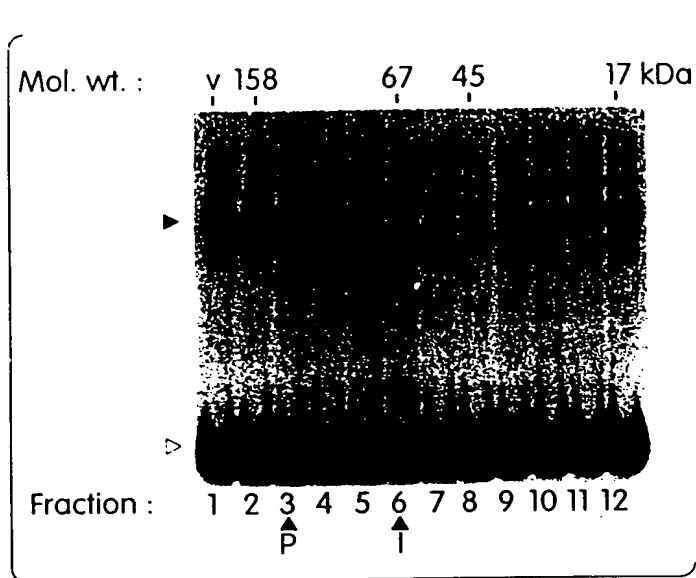


Fig. 35A

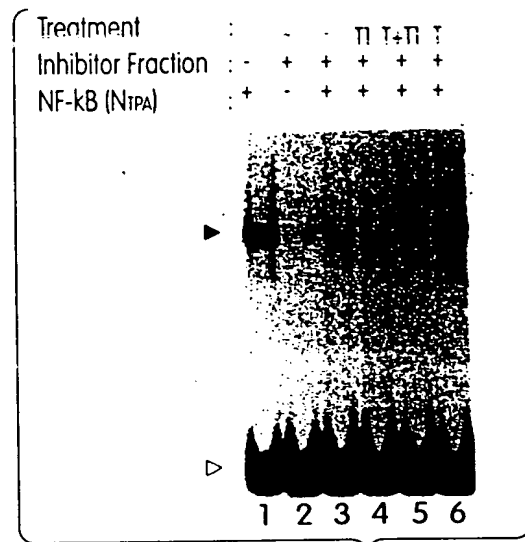


Fig. 35B

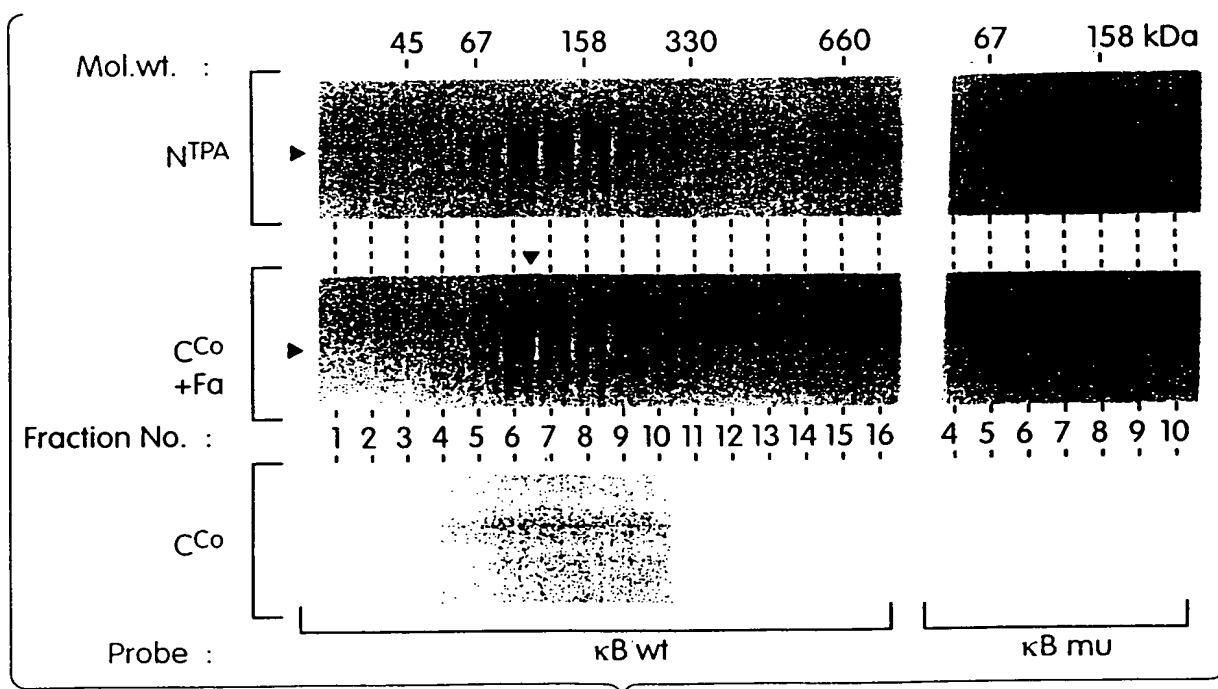


Fig. 35C

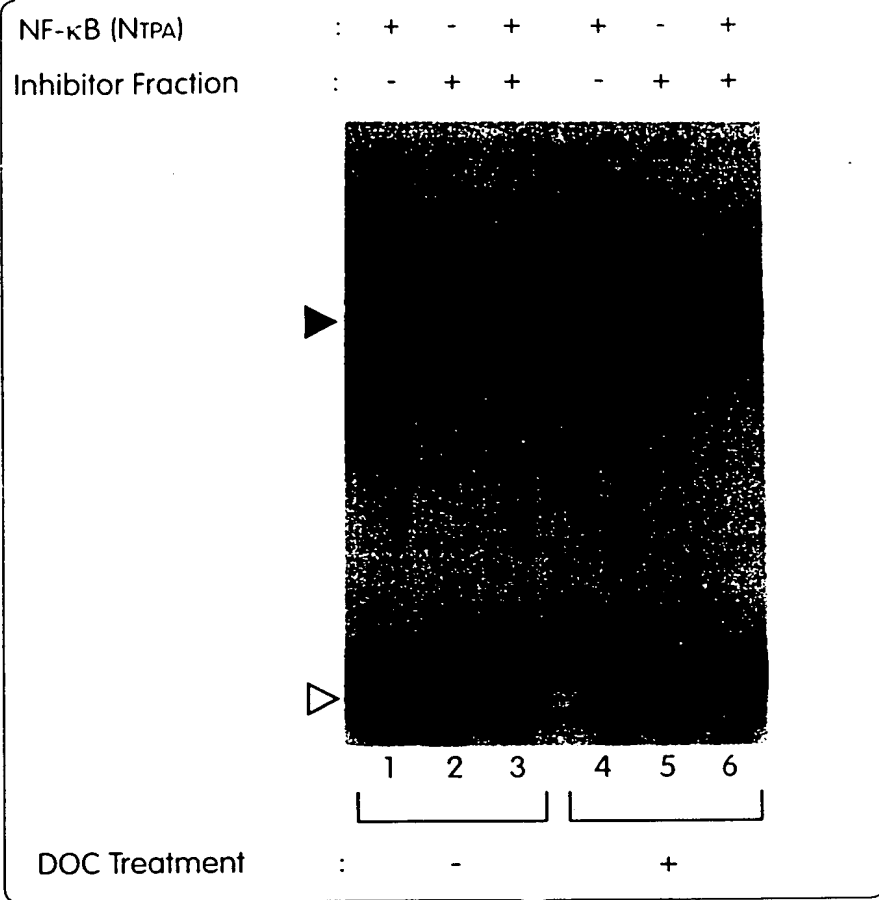


Fig. 36A

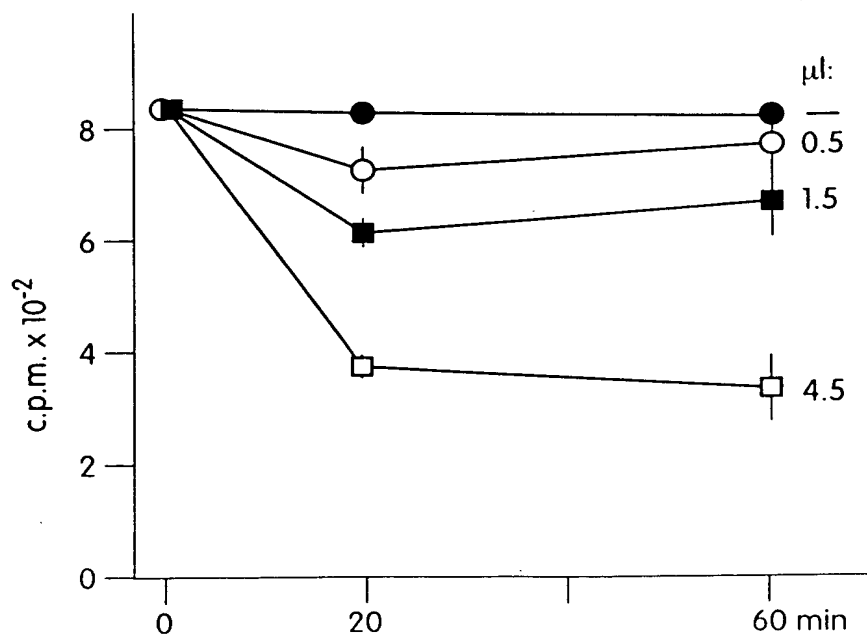


Fig. 36B

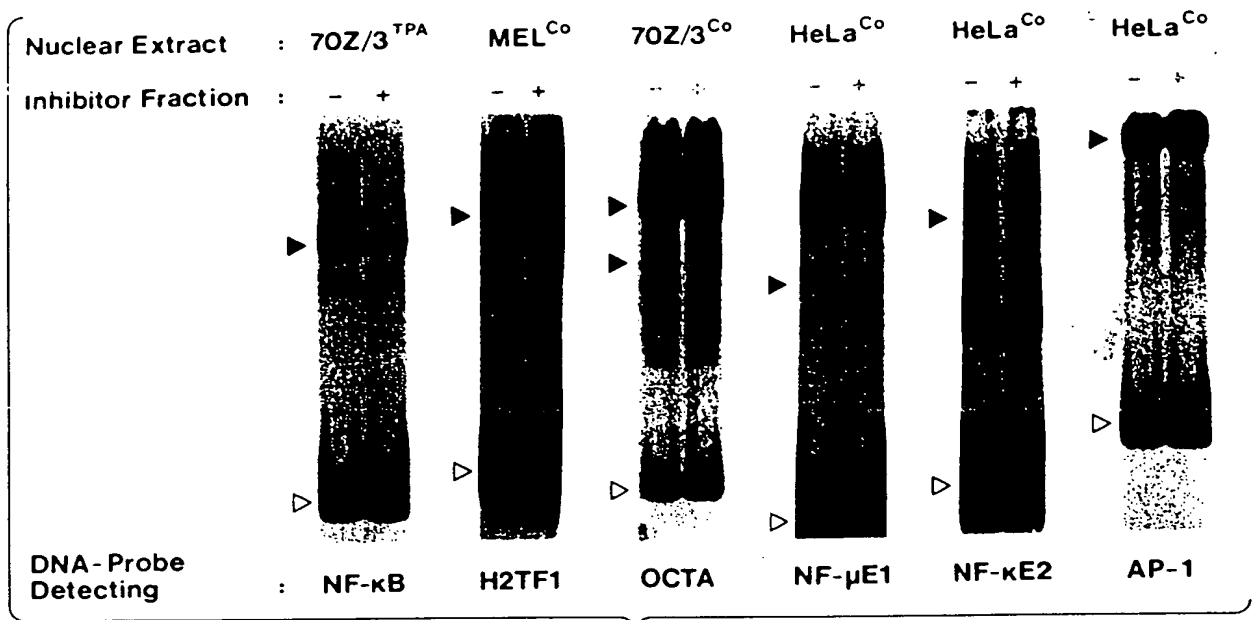


Fig. 37A

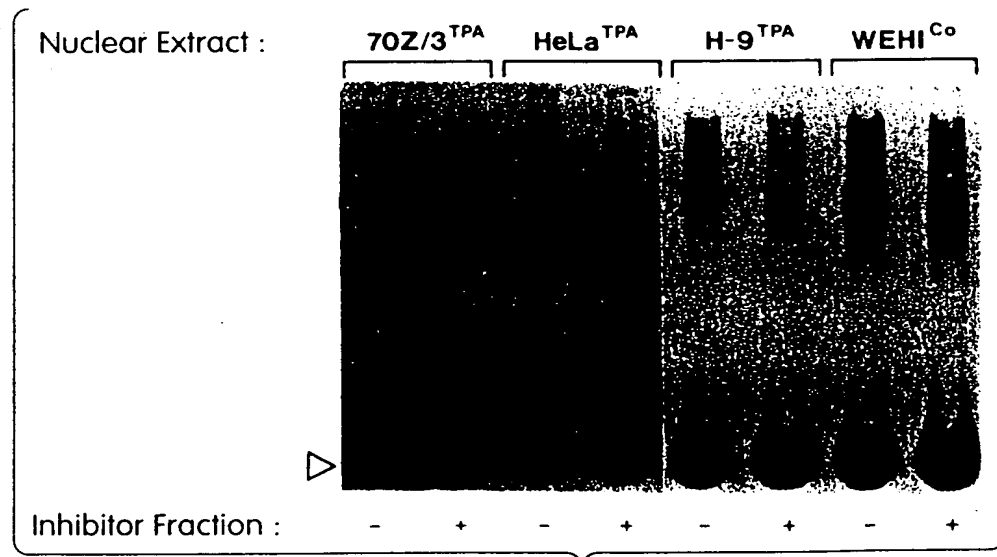


Fig. 37B

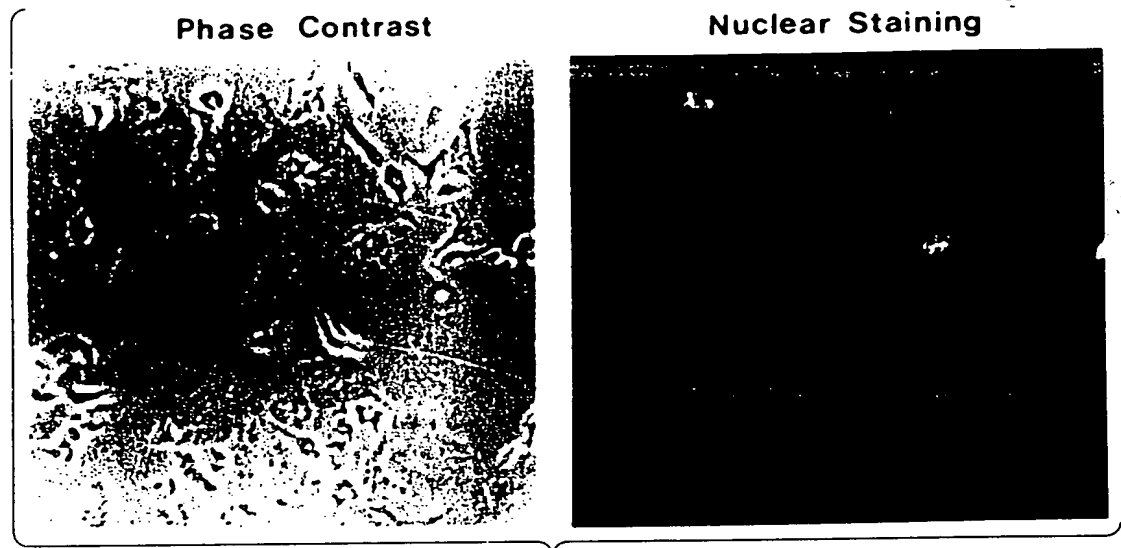


Fig. 38A

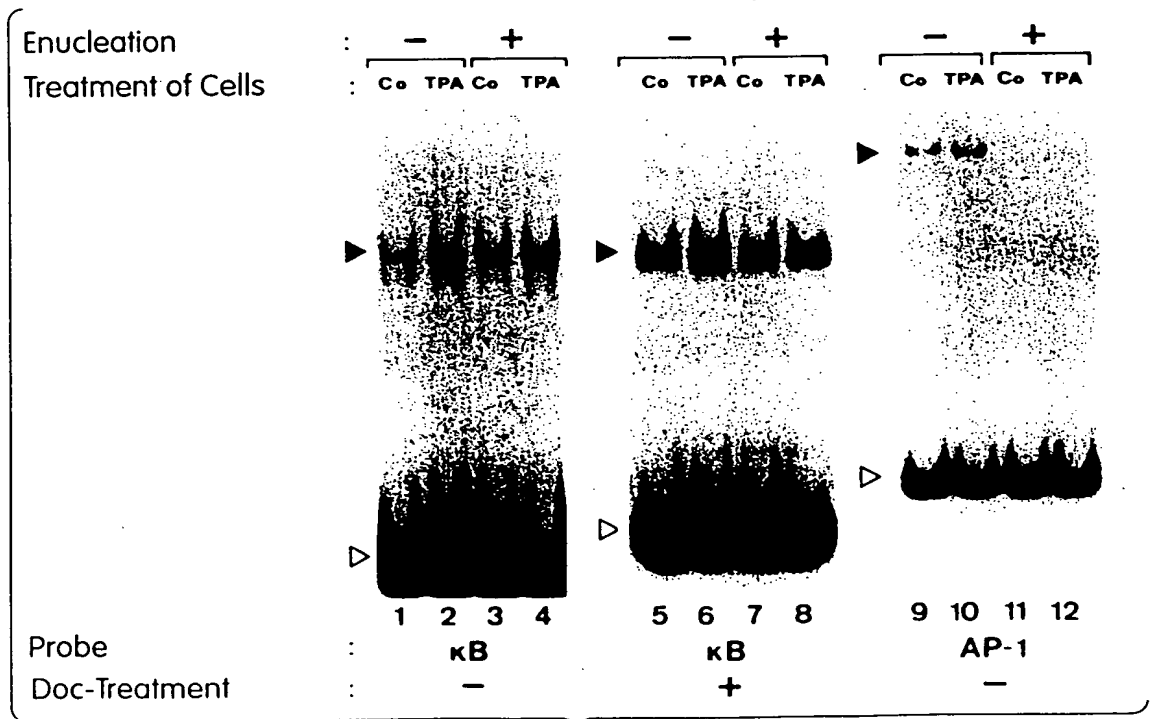


Fig. 38B

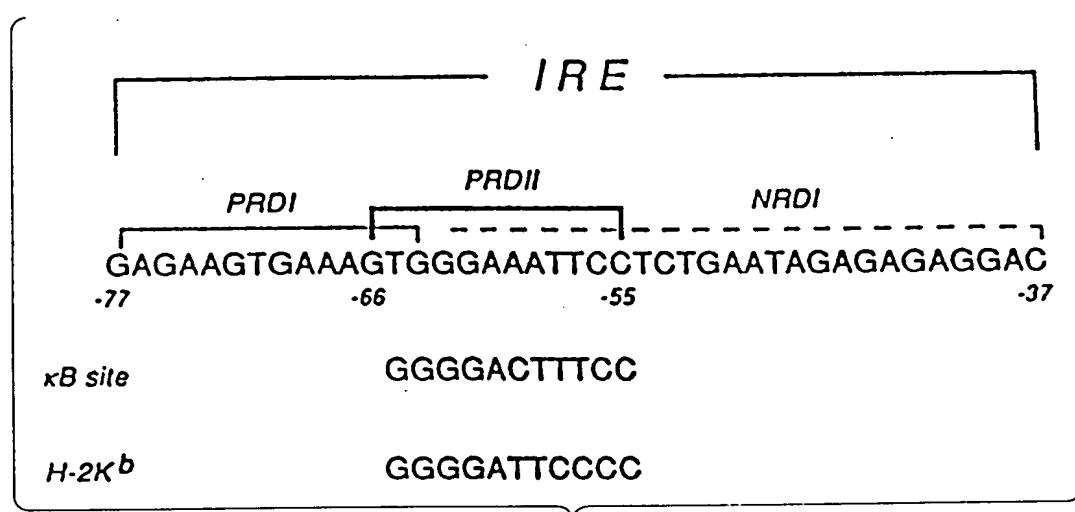


Fig. 39

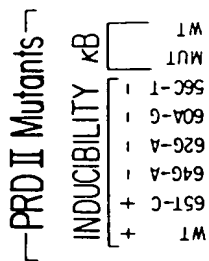


Fig. 40B

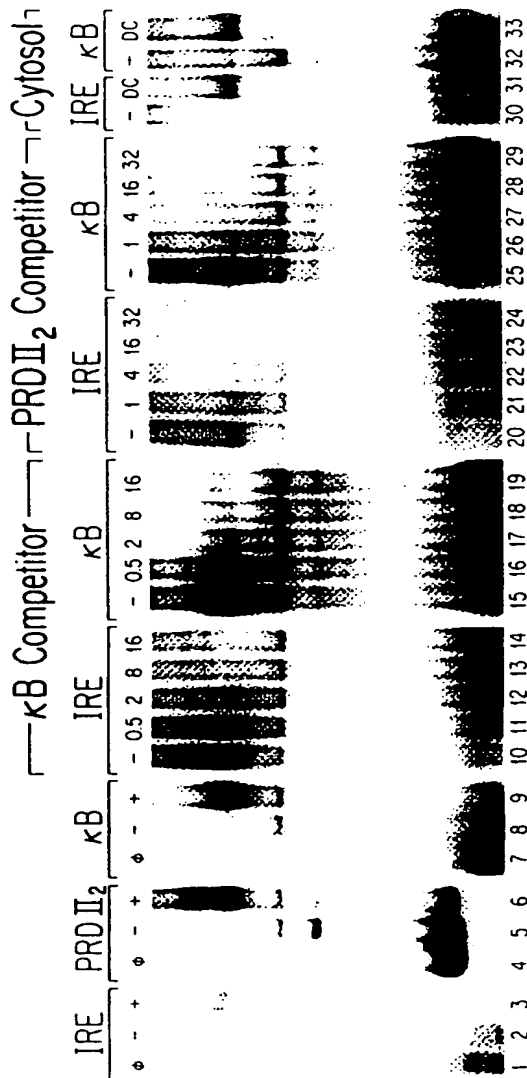


Fig. 40A

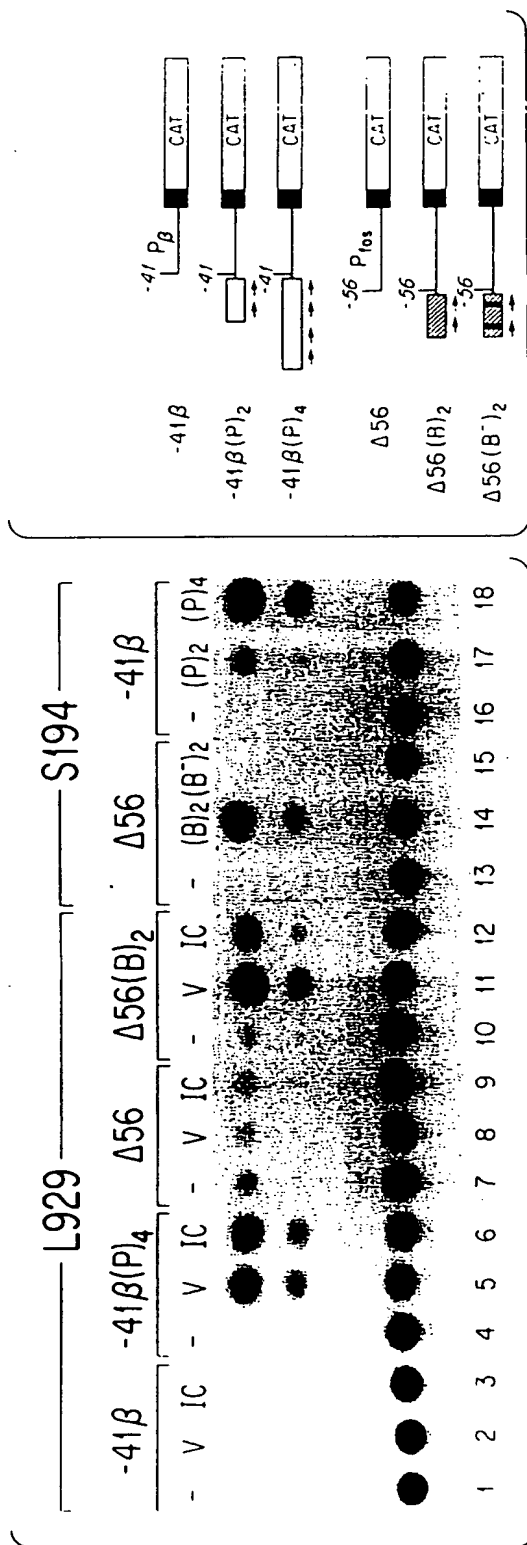


Fig. 41A

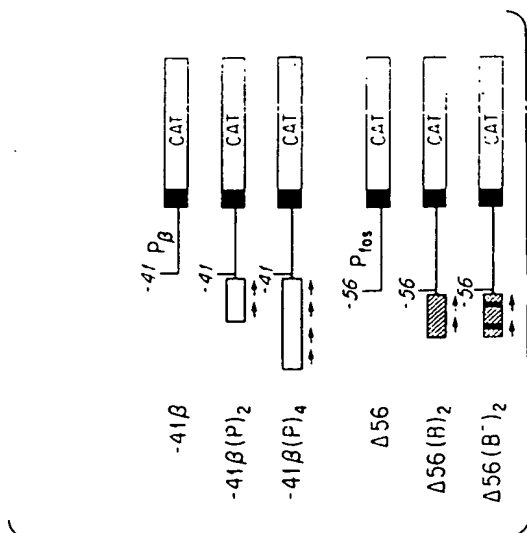


Fig. 41B

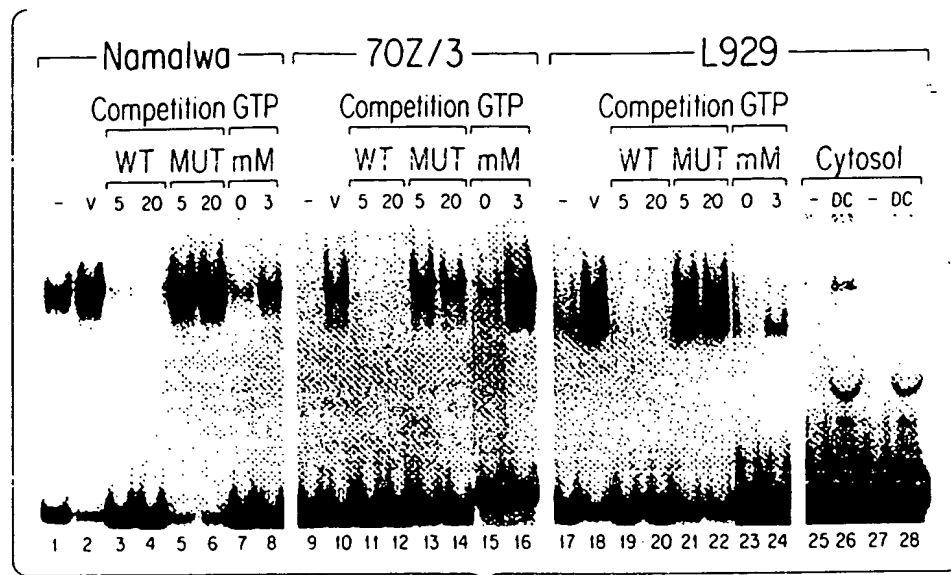


Fig. 42A

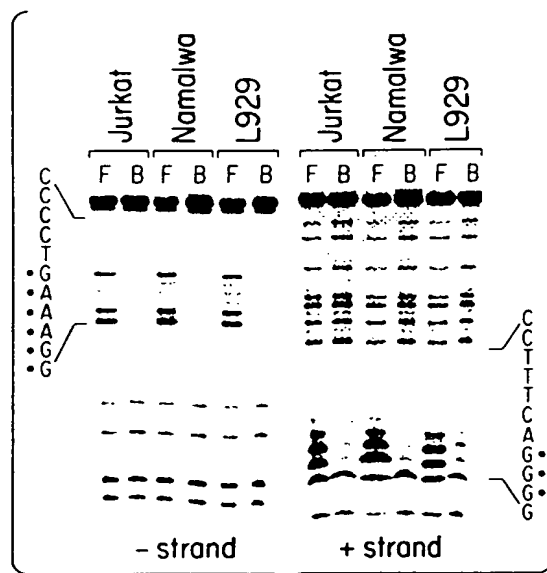


Fig. 42B

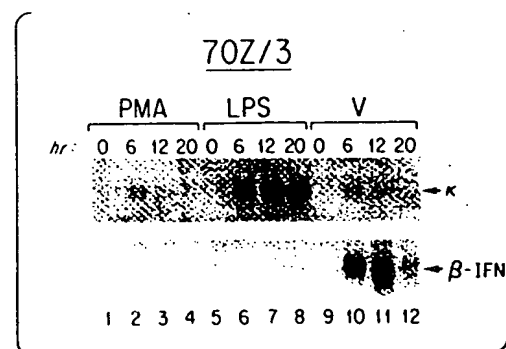


Fig. 42C



AAACATTGCAACCTTATAAAAAATTAACTATTTTCGACAAATGCCGAGAAAGGAAAATCTGTGTTAGGTGCTGGTGGG  
AAAAACACTATCTCCAGCTTGTAGGTTTGAGCATCACCCAGAAACCCTTGTATGAAATCACACACAGAAACAAGTAGAGG  
AGGCAAATGTGAATCGTGGGGCTATAAAGCCATCAAGGGATCTGATGAAAGAACCCCGAGACGAAACCCCCACC  
CCCCACAACAGGATCGGCACCCAGAGTTCAACAAGTGGCTGACTTTGTTAAACACTACGTGGGAACCCCATAGTC  
CCGGATCAGTAGTTGCACAGCCCCCTCCCCGACAGACTACACCGCTGTTTGCTGATCCTTGCCACCCCATGCTCT  
CCTCCCAAGCCCCGTTCTGCTCCTCTGTCTCTGGGGCTGGATTGAACCGCACACAAGTCTGCATCTGGCACCGAA  
TTCTCATGGGAGCCACGTCATGAGGTACGTGGTTGCACACCTATCACAGAAGTCTTGCACTCTGACTCTCCTGA  
GCTCGGTGGGAAAGTCTGGATAGTACCTCCCCCTCTCTGCCACAAAAGCAGCCCTCACATTCACAAAGTTCCAAAG  
CAGGTCTATTGAGTTCTCTTCAGAGCGAGCCTTTGTCAAAACACACCTGGAGGGGGAGTCTCACCTCTCCCCAGC  
AACTCAGATCAGTGCCCTTATTTTAAATGCTCCGGCCCCAATCCTGAGGTGCTGCTGGGTTTGTGGGCTGCGTTTGT  
TGAACCTCCCCCTCCCCAACGCCCTGGCATTTGCAATTAAAACCTGGATTCAAGGGCCAAATTCAGGCCCA  
GAGTGAGCAGTAGGATGTGGAGCTCAAAGCAGAGTTGCACCTGCTGACCCCCAGCCTGAATTTGGTTCACCCAGAG  
ACTACAAGTCAGAAAGGCATGTTAGAAAGAGGCATGCTAAGGACTGATGGTGGAAACGGCCAATTTGTCGCCACCA  
GCACAGTGGGGAAGCTGGACAGAGAAAGAGAGGATCCATAGAGATGTGAACCCAGAAATCAGTCGTGTTGAGC  
TCTGGGTATATCACTACATGTTTAACTCTTGCAAGACCCTTTGCCCAGGGCTTTGGTACCACAGGTTAGAGTTAC  
ATTAAACCACAACCACAGAGAGGAACTGAGGTTTATGACCCCCCCCCCCCCCAAGGTTAGATTTCTGCCGAGTATA

M T P P P P K V R F L P S I

AAAGGGGGGGAAGGGGGGGCTTGGTTCATTCCCTTCACTGTGTGACCGAAGTTTGCTTTTATTGTAAACA  
K G G E G G P W F I S L H C V T E V L L L F V N I

L N Y P S F S S L H R A V V R P L E G I P R L G T  
TCTTGAATTACCCGTCGTTTCCAGTCTTCATCGTCTGTTGTACGCCACTGGAGGAATTCCCCGTCTCGGAAC

P P P A P A A A P R R P A S S A A M L S A H R P A  
GCCGCGCCAGCACCAGCGCGCGCGCGCGCGCATGCTCAGCGCCACGGCCCCGCC

Figure 43 (continued)

GAGCCGCCCGCTGGAGGGCTGCGAGCCCGCGCAAGGAACGGCGGGGCTGCTGCCGCCGACGACCGCC  
E P P A V E G C E P P R K E R Q G G L L P P D D R H

ACGACAGCGGGCTGGAATCAATGAAGGAGGAGGAGTACAGGAGCTGGTGGGGAGCTGGAGGACATCCGCTGCA  
D S G L D S M K E E E Y R Q L V R E L E D I R L Q

GCCCCGAGCGCCCGCGCGCACGCCCTGGGCCAGAGCTACCGAGGACGCGACACTTTCTCCTTCTG  
P R E P P A R P H A W A Q Q L T E D G D T F L H L

GCGATCATTCAGAGGAAAGCCCTGAGCCTGGAGGTATCCGGCAGGCCGCTGGGGACGCCCTTCCCTGAAC  
A I I H E E K A L S L E V I R Q A A G D A A F L N F

Ank. I

TCCAGAACAACTCAGCCAGACTCCGCTCCACCTGGCGGTGATCACGGACGCGGAAATCGCCGAGCACCTGCT  
Q N N L S Q T P L H L A V I T D Q A E I A E H L L

Ank. II

GAAGGCTGGCTGCGACCTGGATGTCAGGACTTCCGTGGGAACACCCCGCTCCACATCGCCTGCCAGCGGCTCG  
K A G C D L D V R D F R G N T P L H I A C Q Q G S

Ank. III

CTCCGAGCGTCAGTGTCTCCTCAGCAGCACTGCCAGCCCCACCACTCCTCGCGTCTGCAGGCCACCACTACA  
L R S V S V L T Q H C Q P H H L L A V L Q A T N Y N

ACGGCCATACATGTCTCCATTGGCATCTATTCAAGGATACCTGGCTGTTCGAATACCTGTCTCTTAGGAGC  
G H T C L H L A S I Q G Y L A V V E Y L L S L G A

Ank. IV

AGATGTAAATGCTCAGGAGCCATGCAATGGAGAACAGCACTACACTTGGCCGTAGACCTTCAGAACTCAGACCTG  
D V N A Q E P C N G R T A L H L A V D L Q N S D L

Ank. V

Figure 43 (continued)

GTGTCACCTTCTGGTGAAACACGGGCCAGATGTGAACAAAGTGACCTACCAGGGCTACTCCCCATACCAAGCTTACAT  
V S L L V K H G P D V N K V T Y Q G Y S P Y Q L T W

GGCAGAGACAACGCCAGCATACAGGAGCAGCTGAAGCTGCTGACCACAGCTGACCTGCAGATACTGCCCGAAAGT  
 A E T T P A Y R S S 354

GAGGATGAGGAGCAGTGAATCAGAGCCAGAGTTCACAGAGGATGAACTTATGTATGATGACTGCTGTATTGGAG  
 GAAGACAGCTGACATTTTAAAGCAGAGGTTTCTGTGAGAAAGTGACTGTACATATGTATAGGAAATAAGCCTGA  
 CTTTCTTCATTTAAAAAGAAAGTCTATACTCGAAAGGAGAAAAAGTACTGAGATACTACACTGCCCCAGCCAGGAGC  
 ACATCATGCTAACAGGTTCCATGCTCTGACCTGTAAGTAACGGGATGGGATGTGAACATCGTTAAGAGATC  
 AGTGAACATGCACACCATCTGATAAAGAGCCACGTTATCTAATTTCTGTCCACATGAGGATAACGGACTGCACGT  
 CCAATGTGCTGTTGTCAGAAATGCGTTTGAGAGCTGCCCTTGACACTAAGTGTGAGGAGTGTCTATCCCCCT  
 CGGTGGCAAGACAGGCTTGACAAAAACGTCCCATCTGCTTGAAGACTGTGAGGTTGGCATTAGGTTGAGGCACCTGCT  
 TGCCCCTGCTCCCTGACCCCTGGCTGCTCAGGGTTGAGGAGTCCGACCATGGGAGAGGTGACCTGGCTGCTGGGAGG  
 AAGGTAGCAATGATGTTAACTGTGGGCATTTGGAAACTGTGTGTTTACACCATGTGTGTATTAATTGCTACACTT  
 TTTAGCCAACTGTATAGAATGTAATACTGTACATCTTTGTTTATAATTATTTGGTACCTGTGAGATATGTATTTA  
 TTAAAAAAGGCAGATTCTGTAAAAA